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CENTRAL HAMILTON URBAN RENEWAL STUDY

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C E N T R A L H A M I L T O N

U R B A N R E N E W A L S T U D Y

C I T Y O F H A M I L T O N

September 1965

Prepared by:

Murray V. Jones and Associates Limited

-in conjunction with-

the Urban Renewal Committee
of the City of Hamilton

MURRAY V. JONES AND ASSOCIATES LIMITED

Urban and Regional Consultants
170 Bloor Street West
Toronto 5, Canada

October 1965

Mayor Victor Copps,
Members of the Board of Control
and Council of the City of Hamilton,
Mr. Kenneth D. Soble,
Members of the Urban Renewal Committee
City of Hamilton

Gentlemen:

Central Hamilton Urban Renewal Study

Pursuant to agreements between the City of Hamilton and the Province of Ontario and between the City and Central Mortgage and Housing Corporation, we have now completed our report on those aspects of the agreements dealing with the Central Area of Hamilton. Simultaneous with the transmittal of this report will be our report on the Civic Square Urban Renewal Scheme and later this year we will submit our report on the York Street Urban Renewal Scheme.

As is normal in matters of this kind it would be impossible to list all of those persons and organizations who have provided assistance to us in completing this work. We would, however, like to give particular recognition to the first-rate cooperation provided by Mr. Graham Emslie, City of Hamilton Urban Renewal Commissioner. You are indeed fortunate to have such an effective public servant without whose expeditious administration of all matters associated with this report it would not have been possible to have produced what we trust will be a valuable policy guide for the City of Hamilton.

It is our sincere hope that the information and recommendations contained in this document will in some measure add to the ability of the City's administration to provide an improved urban environment for the people of the City of Hamilton.

Respectfully submitted,

Murray V. Jones

CENTRAL HAMILTON URBAN RENEWAL STUDY

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INTRODUCTION

Through agreement between Central Mortgage and Housing Corporation and the City of Hamilton dated 25 February, 1965, and between the Province of Ontario and the City of Hamilton dated 26 July, 1965, the latter agreed to undertake "the economic, social and engineering research and planning of the area necessary to subsequently prepare one or more urban renewal schemes within the area and ....the preparation of an urban renewal scheme for the lands." The "area" referred to above has been defined as that bounded by Highway 403 on the west, the Toronto, Hamilton and Buffalo Railway on the south, Victoria Avenue on the east and the C.N.R. on the north. The "lands" consist of the north-west portion of the area generally relating to York Street and to several blocks north of the City Hall where there has been an assumed priority of urban renewal need.

In order to carry out this program the City of Hamilton has entered into a further agreement with the consulting firm of Murray V. Jones and Associates Limited. The following report is the first of three to be prepared by this firm in conjunction with the Urban Renewal Committee of the City of Hamilton and attempts to fulfill the requirements of the Provincial and C.M.H.C. agreements with respect to the above defined "area". The work program set out in the agreement (and accordingly the report) provides for the collection of data on physical and economic characteristics of the overall area. There follows the determination of specific factors such as land use and building condition and, from this, the establishment of a generalized plan of anticipated development and redevelopment. The concept plan is accompanied by a recommended program of future public renewal study and action.

HAMILTON HARBOUR

CITY OF HAMILTON

CENTRAL HAMILTON URBAN RENEWAL STUDY

MAP 1 - URBAN RENEWAL STUDY AREA

MURRAY V. JONES & ASSOCIATES, LTD. SCALE - 1": 2400' SEPT., 1965

I PHYSICAL CHARACTERISTICS OF THE AREA

1. LOCATION

The Central Hamilton Urban Renewal Area is comprised of about 1,150 acres of the downtown and west end of the City of Hamilton. As illustrated on Map 1 it is bounded on the north by the main line and marshalling yards of the Canadian National Railways which is in turn flanked by Hamilton harbour and by a residential area now under renewal and referred to as the North End. The western limit is somewhat irregular; it adjoins the edge of Dundurn Park and Hamilton Cemetery to the north-west and then follows the right-of-way of Highway 403 (presently under construction). The Toronto, Hamilton and Buffalo Railway constitutes the southern boundary with a sizable residential area remaining between the railway and the escarpment. The eastern limit is Victoria Avenue, the effective limit between the central area function and the predominantly residential community in the east end of the city.

The area thus includes all of what can be termed the central business district, the majority of the area associated with (and peripheral in function to) the C.B.D. and about half of the older residential section of the west end of the city.

2. SELECTION OF BOUNDARY

The establishment of the actual limits of the urban renewal area was primarily related to land use, topography, function and priority of need for renewal. The latter was largely determined from a previous urban renewal study prepared in 1958 by the planning department of the City of Hamilton, wherein nine residential areas were defined and assigned a redevelopment priority. Four of these areas plus the majority of two others are within the present urban renewal area; of the remaining three, one has been redeveloped and a second is currently under renewal.

The other factors of land use and function are basically interrelated. The whole of the C.B.D. and its peripheral problem areas are included by the definition of Victoria Avenue as an eastern boundary. The west end area is only partially defined but the majority of its deteriorated residential structures are included through the logical utilization of the T.H. & B. Railway as the physical division to the south.

The remaining limits are oriented to topography with the valley (Highway 403) and the harbour offering a natural boundary. The C.N.R. main line not only parallels the harbour but serves as the division between the north-east portion of the area and the North End renewal project.

3. HISTORY OF GROWTH AND DEVELOPMENT

The site for Hamilton was first surveyed and named in 1813, although United Empire Loyalist settlement had occurred as early as 1778. Its incorporation as a town in 1833 was coincidental with a period of expansion stimulated by the construction of the Welland and Burlington Canals and the Great Western railway and by the turn of the century the population had reached 52,600. Immigration together with the growth of the primary steel industry through the demands of two world wars led to a rapid increase in population which more than doubled to 200,000 between the post-war periods. The present total is about 278,000 persons.

The urban renewal area itself was the site of most of the early settlement (see Map 2). Centred around the intersection of King and James Streets, the population by the date of incorporation of Hamilton as a city in 1846 was about 6,800. The limits of growth at that time were generally Barton and Bay Streets to the north and west and Wellington and Charlton Streets to the east and south. Its general cruciform shape was related to the early access routes of King and York Streets on an east-west plane and to John Street to the north and south.

This early settlement was gradually expanded over the years to the end of the century when virtually all of the renewal area as well as

HAMILTON HARBOUR

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CENTRAL HAMILTON URBAN RENEWAL STUDY

MAP 2 - URBAN SETTLEMENT

-1847 | 1848-1900 | 1901-1914 | 1915-1939 | 1940-

MURRAY V JONES & ASSOCIATES, LTD. SCALE - 1": 2400' SEPT., 1965

lands to the north, east and south were developed. Industrial growth initially occurred near the harbour on reclaimed marshlands and subsequently spread along the areas peripheral to the railways. Gradual redevelopment of early residential areas took place as the commercial function of the central area expanded to meet the needs of the growing population. The last of the renewal area to be urbanized was the extreme western fringe which developed in residential use prior to 1914.

Redevelopment which has since taken place has been sufficiently dispersed throughout the area that the general impression of the urban landscape today is one of age. Many of the downtown buildings are either original or early redevelopment from original housing and the absence of post-war interest in downtown investment is reflected in the prevalence of parking areas which have replaced outmoded structures.

The residential portions of the renewal area are basically old. The evolution of Hamilton as a centre of primary industry is reflected in the uniformity of housing accommodation oriented to the skilled labour market. The proportion of semi-detached and multiple attached housing is high and notably absent are any significant concentrations of larger single-family housing.

4. BUILDINGS OF ARCHITECTURAL OR HISTORICAL MERIT

As previously described, the renewal area was the locale of most of the oldest development in the city and accordingly contains many buildings constructed over a century ago. Virtually all of these are of little or no historical or architectural interest and their preservation cannot be recommended on these grounds alone. A few, however, are considered to be among the best examples of their type within a particular architectural period and have been recommended for conservation by the Hamilton branch of the Architectural Conservancy Society of Ontario. The location of these structures is illustrated on Map 15 (page 29) and a brief description of their use, location, age and significance is set out below.

(1) St. Paul's Presbyterian Church, James Street South - built in 1854, the structure is one of the best examples of church architecture of the Gothic revival type in Ontario.

(2) Christ Church Cathedral, James Street North. This is another example of the Gothic revival style; the cathedral was dedicated in 1842 and the chancel added in 1852.

(3) Old Custom House, 51 Stuart Street West. Best described as Victorian renaissance in style, the structure was erected in the early 1860's for use in conjunction with the Grand Trunk Railway.

(4) Rae Brothers warehouse, 154 York Street. Built in the 1850's as a warehouse, this is a good example of a commercial building in a late Georgian style of architecture.

(5) Young, Law and Co., MacNab and Merrick Streets. Constructed in 1853 as a wholesale dry goods house, this structure is another example of Victorian renaissance with classical detail.

(6) Roach House, 55 Barton Street West. A well proportioned early Victorian house with fine masonry detail, the building was constructed in 1854 for a former mayor of Hamilton.

(7) Arlo House, 206 Main Street West. Similar to the Roach House although built in 1867.

(8) Whitehern, 41 Jackson Street West. This building is more classical in design (late Georgian) than the above two; it has been designated as a historic site to be bequeathed to the city.

(9) Raich House, 117 Mary Street North. Originally built in the 1830's, this residence remains a classical example of the smaller urban villa of the period.

(10) Dundurn Castle, Dundurn Park. Constructed by Sir Allan MacNab in 1835 and bequeathed by him to the city of Hamilton, this large, Tuscan-style residence is unique in Ontario.

A few other structures of the post-1867 era are architecturally interesting:

- Centenary United Church, Main Street West (1868) - Solemn Romanesque with a fine interior.

- Canada Permanent Mortgage Building, Main and James Streets (1920) - an interesting reproduction of the Corinthian columnal detail of the Knickerbocker Trust building in New York.

- Birk's Building - King and James Streets (1870's) - a further example of Gothic revival architecture.

- T.H. and B. Railway Station, Hunter Street East (1920's) - an example of early modern style as a departure from the earlier revival type.

- Basilica of Christ the King - King Street West (1933) - a good example of late Gothic revival architecture.

5. EXISTING DEVELOPMENT CONTROLS

There are four pertinent elements of municipal legislation relating to control of land use or to existing or proposed development. These include the Official Plan for the Hamilton Planning Area, Zoning By-law 6593, Building By-law 4797 and Health By-law 4798.

(a) Official Plan

The Official Plan of the Hamilton Planning Area was originally approved by the Minister on June 12, 1951, and has subsequently been the subject of over 200 formal amendment applications. The document consists of a land use plan for the city designating general areas for five use categories - residential, commercial, industrial, agricultural and a combined category of recreational, civic and cultural. As illustrated on Map 3, only the first three of these use areas have application to the urban renewal area.

(b) Zoning By-law

By-law 6593 was initially passed on July 25, 1950 and has been substantially amended both generally and specifically since that time. Apart from a number of general provisions, the by-law contains regulations relating to 26 zones or districts. A total of 11 affect the urban renewal area including three low density residential districts, two multiple family or apartment zones, a public parking district, two commercial districts, a civic centre zone and two industrial districts. The distribution of these zones is illustrated on Map 4.

(c) Building By-law

By-law 4797 was passed on September 29, 1936 and through various subsequent amendments (the most recent consolidation is to May 1964) now provides for the construction, alteration or demolition of structures through defined administrative procedures. This control extends to restrictions on the type and quality of materials, building height, area, design, and means of egress, heating installations and other similar matters relating to construction. Safety measures are also included in terms of design, construction, occupancy, use and maintenance.

(d) Health By-law

By-law 4798 was also passed in September 1936 in conjunction with the building by-law. The most recent consolidation of amendments is dated April 10, 1963. The by-law provides that all operations involved in the preparation, sale or use of materials for internal consumption, all schools, hairdressing establishments hotels etc. be inspected annually and approved through licence as having met adequate health standards. House inspections and closures are permitted by court order and standards are enforced with regard to occupancy, ventilation, heating and nuisance factors injurious to health.

HAMILTON HARBOUR

CITY OF HAMILTON

CENTRAL HAMILTON URBAN RENEWAL STUDY

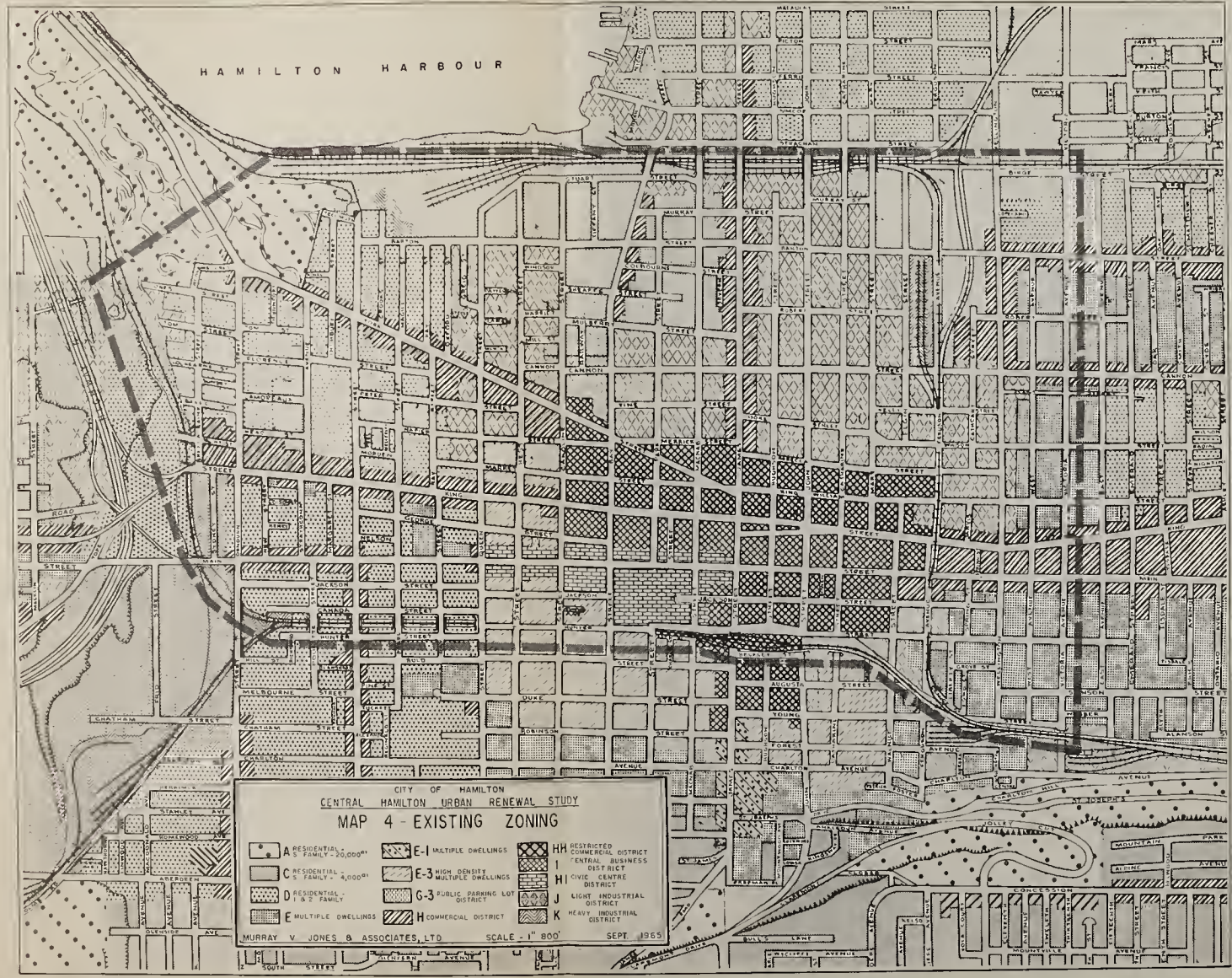
MAP 3 - EXISTING OFFICIAL PLAN

RESIDENTIAL

COMMERCIAL

INDUSTRIAL

MURRAY V. JONES & ASSOCIATES, LTD. SCALE - 1" = 2400' SEPT., 1965


HAMILTON HARBOUR
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 4 - EXISTING ZONING
A RESIDENTIAL - 1 FAMILY - 20,000 SQ FT
C RESIDENTIAL - 1 FAMILY - 4,000 SQ FT
D RESIDENTIAL - 1 & 2 FAMILY
E MULTIPLE DWELLINGS
E-1 MULTIPLE DWELLINGS
E-3 HIGH DENSITY MULTIPLE DWELLINGS
G-3 PUBLIC PARKING LOT DISTRICT
H COMMERCIAL DISTRICT
HH RESTRICTED COMMERCIAL DISTRICT
I CENTRAL BUSINESS DISTRICT
HI CIVIC CENTRE DISTRICT
J LIGHT INDUSTRIAL DISTRICT
K HEAVY INDUSTRIAL DISTRICT
MURRAY V. JONES & ASSOCIATES, LTD.
SCALE - 1" 800'
SEPT. 1965

6. EXISTING LAND USE

The existing land use pattern is illustrated on Map 5, wherein the predominant uses are classified under five basic categories: residential, commercial, industrial, open space and public and institutional. The designation is generalized to the degree that minor isolated uses have not been identified, thus providing for a better appreciation of the overall urban structure.

One principal element of use defined on the map does not yet exist. The Barton Freeway was, for the purposes of the urban renewal study, assumed to be a 'fait accompli' and the lands required for its right-of-way have accordingly been omitted from the general and detailed considerations of this study. The design and location of the freeway were established in the Hamilton Area Transportation Plan prepared for the City of Hamilton by the firm of C.C. Parker, Parsons, Brinckerhoff, Ltd. in May, 1963.

The prevailing land use pattern south of the freeway is not well defined. Though the area west of Caroline Street (and surrounding Victoria Park) is predominantly residential there is an intermixture of commercial and industrial uses with most of the former peripheral to major roads. The industrial uses are generally larger in scale and intrude more severely into the residential environment.

The uses between Caroline and Wellington Streets are equally ill-defined although the principal uses in this instance are commercial and industrial. The central business district, centred on King and James Streets, is perhaps the most consistent in use. Land use between Merrick and King William Streets and the freeway is representative of a type of function peripheral to the C.B.D. where a wide variety of commercial and industrial enterprises have gradually reduced the original residential community to a few scattered locations. The area east of Wellington Street is again transitional to the primary residential use of Hamilton's east end.

Apart from a pocket of residential use west of Queen Street, the lands north of the freeway are primarily industrial. Beyond the industries and some pockets of housing the largest single use is the Hamilton General Hospital in the north-east corner of the renewal area.

7. EXISTING UTILITIES

(a) Storm and Sanitary Sewers

The present system serving the renewal area is illustrated on Map 6. It will be noted that the vast majority of the sewers are combined storm and sanitary; these are all of considerable age and some are overloaded. The only sanitary sewer of any size is comparatively recent and extends north of King Street between the Valley Street pumping station and Queen Street where it joins the combined system. A partial storm sewer network has been developed to serve the area between MacNab Street and West Avenue.

(b) Watermains

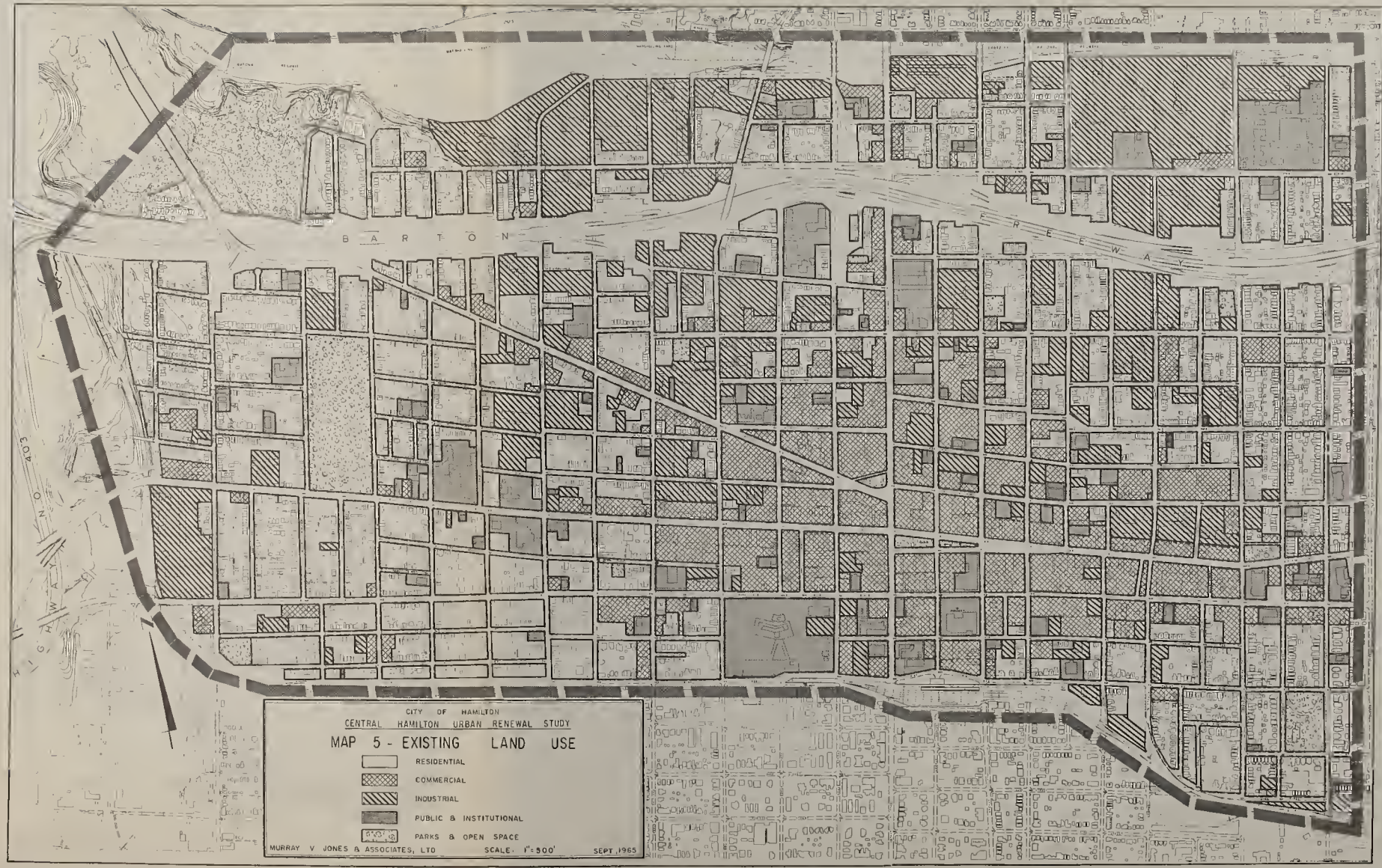
The watermains, while also old, are essentially sound and are of adequate capacity to meet normal demand. The basic grid, related to mountain reservoirs, is illustrated on Map 7.

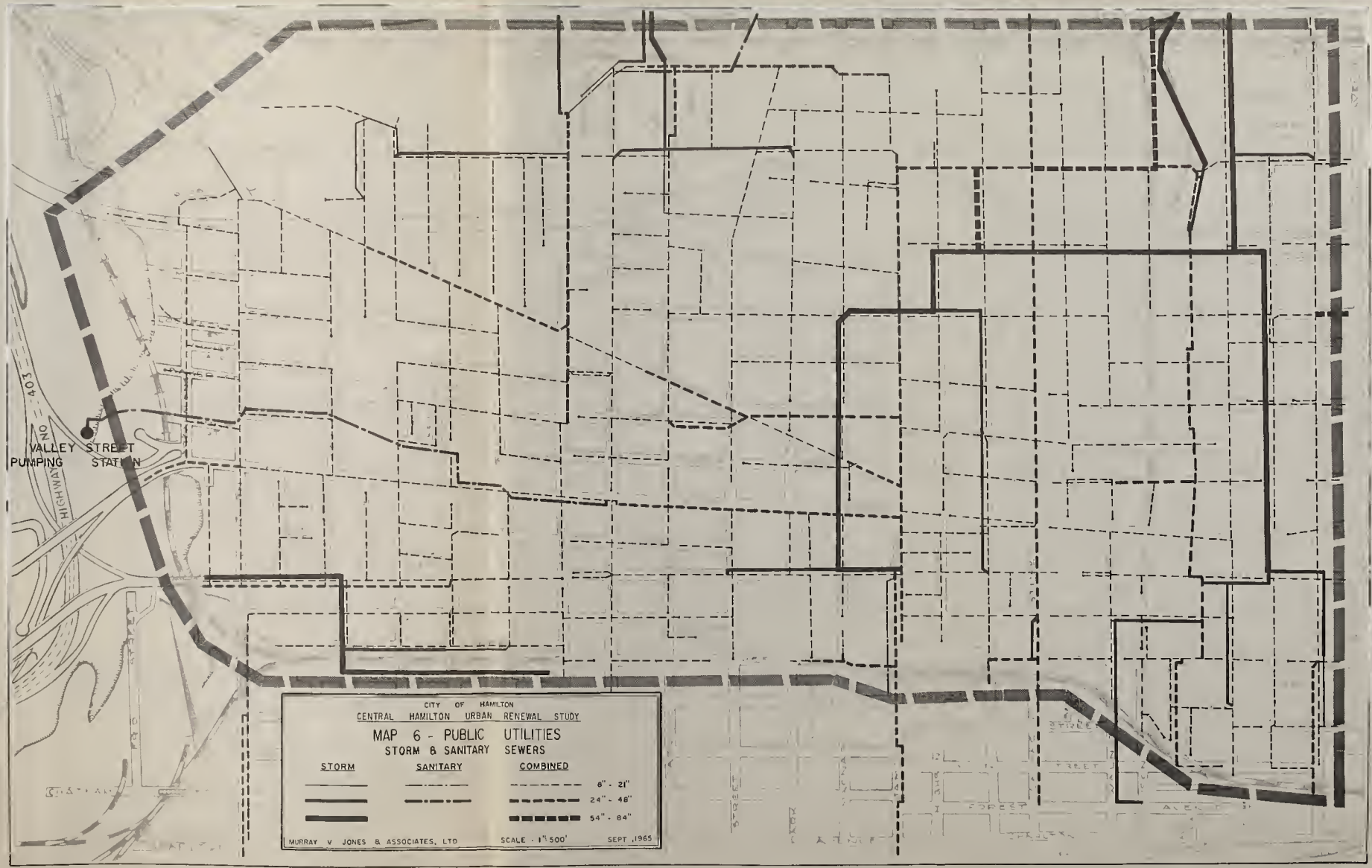
(c) Natural gas

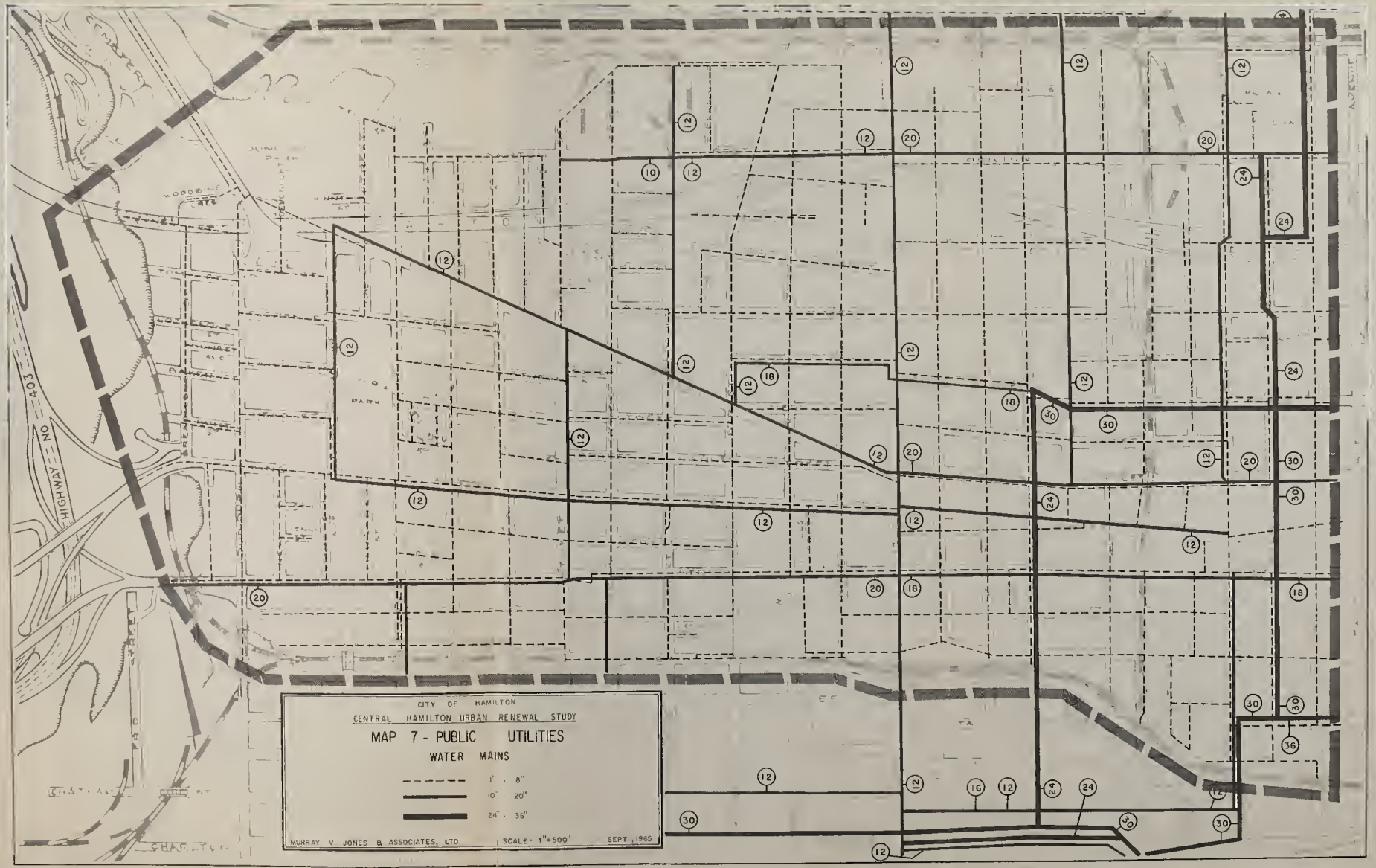
The United Gas Company system for the distribution of natural gas extends through the entire renewal area and has adequate capacity for present and future development. The basic system is graphically illustrated on Map 8.

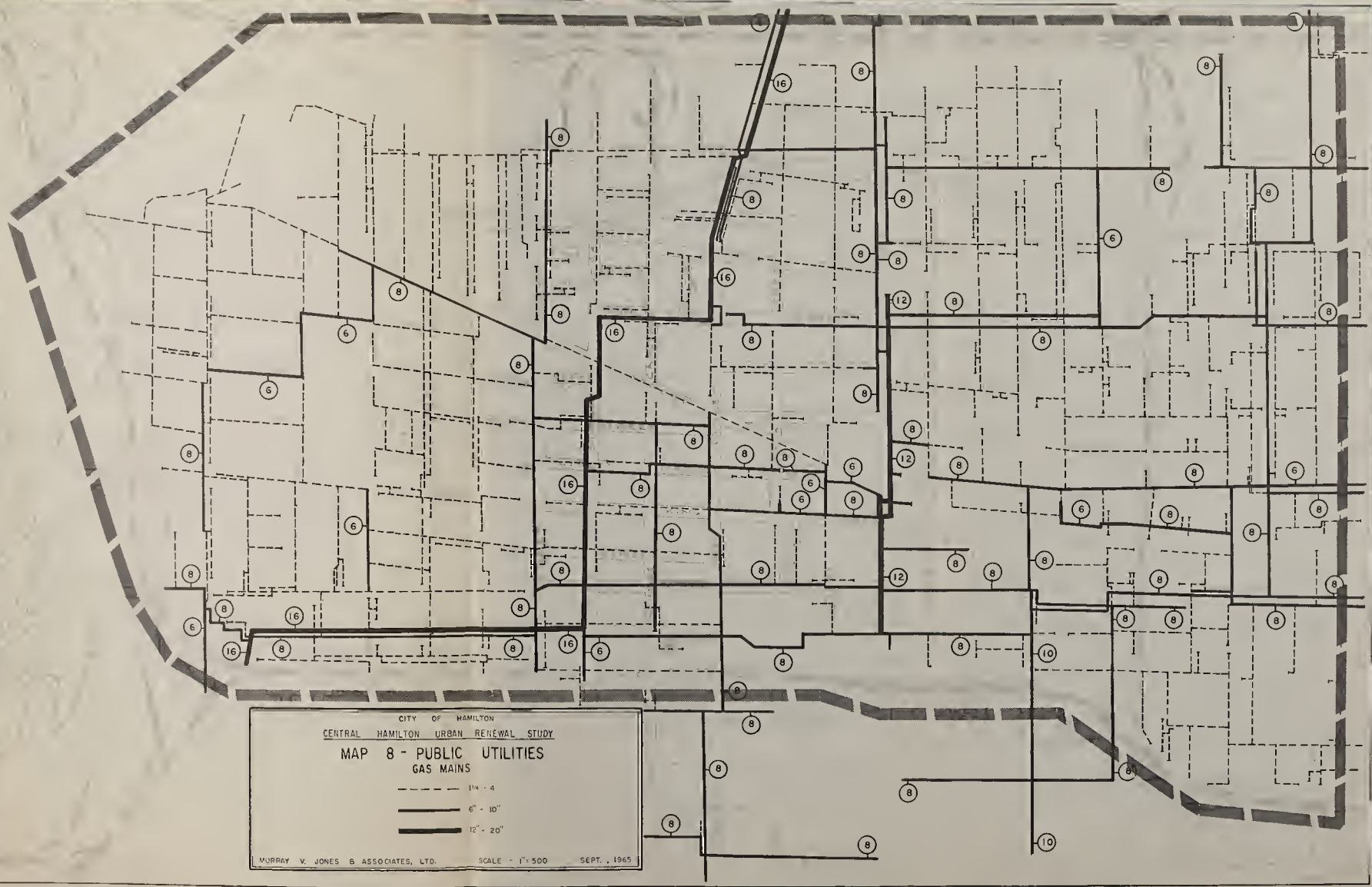
(d) Hydro

The Hamilton Hydro-Electric System provides electric service to every street in the renewal area; the majority of the distribution circuits are aerial and supported on poles located within city road allowances. The system's management has advised that "the present capacity of these circuits and substations supplying them are adequate for the existing


B A R T O N
F R E E W A Y
403
H I G H W A Y
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 5 - EXISTING LAND USE
RESIDENTIAL
COMMERCIAL
INDUSTRIAL
PUBLIC & INSTITUTIONAL
PARKS & OPEN SPACE
MURRAY V JONES & ASSOCIATES, LTD
SCALE: 1"=500'
SEPT., 1965


403
VALLEY
PUMPING
STREET
STATION
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 6 - PUBLIC UTILITIES
STORM & SANITARY SEWERS
STORM
SANITARY
COMBINED
6" - 21"
24" - 48"
54" - 84"
MURRAY V JONES & ASSOCIATES, LTD
SCALE - 1" = 500'
SEPT. 1965


CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 7 - PUBLIC UTILITIES
WATER MAINS
1" - 8"
10" - 20"
24" - 36"
MURRAY V. JONES & ASSOCIATES, LTD
SCALE: 1"=500'
SEPT. 1965
HIGHWAY No. 403
CEMETERY
PARK


CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 8 - PUBLIC UTILITIES
GAS MAINS
1¼ - 4
6" - 10"
12" - 20"
MURRAY V. JONES & ASSOCIATES, LTD.
SCALE - 1"=500
SEPT., 1965

load density plus sufficient excess capacity to take care of the normal load increases over the next several years".

A limited amount of local underground wiring has taken place in the downtown area and along York Street. Certain of the main cables serving downtown and connecting the three central area substations are also buried. The pertinent substations serving the area are located at Dundurn and Hunt Streets, Hughson and Rebecca Streets and to the south of the area on John Street between Augusta and Young Streets.

The H.E.P.C. of Ontario are proposing to install a high-tension substation peripheral to downtown in order to serve the area from about Queen to Wellington Streets and from the harbour to the mountain. The site itself will be generally located within the area bounded by Hughson, Cannon, Ferguson and King William Streets.

(e) Bell Telephone

The Bell Telephone Company service is distributed throughout the area by way of both underground conduit and aerial cable. Apart from the latter type of installation on Locke, Caroline and Bay Streets the main feeder system is underground and is related to the central office facilities on Jackson Street between MacNab and James Streets.

8. EXISTING ROADS AND RAILWAYS

(a) Roads

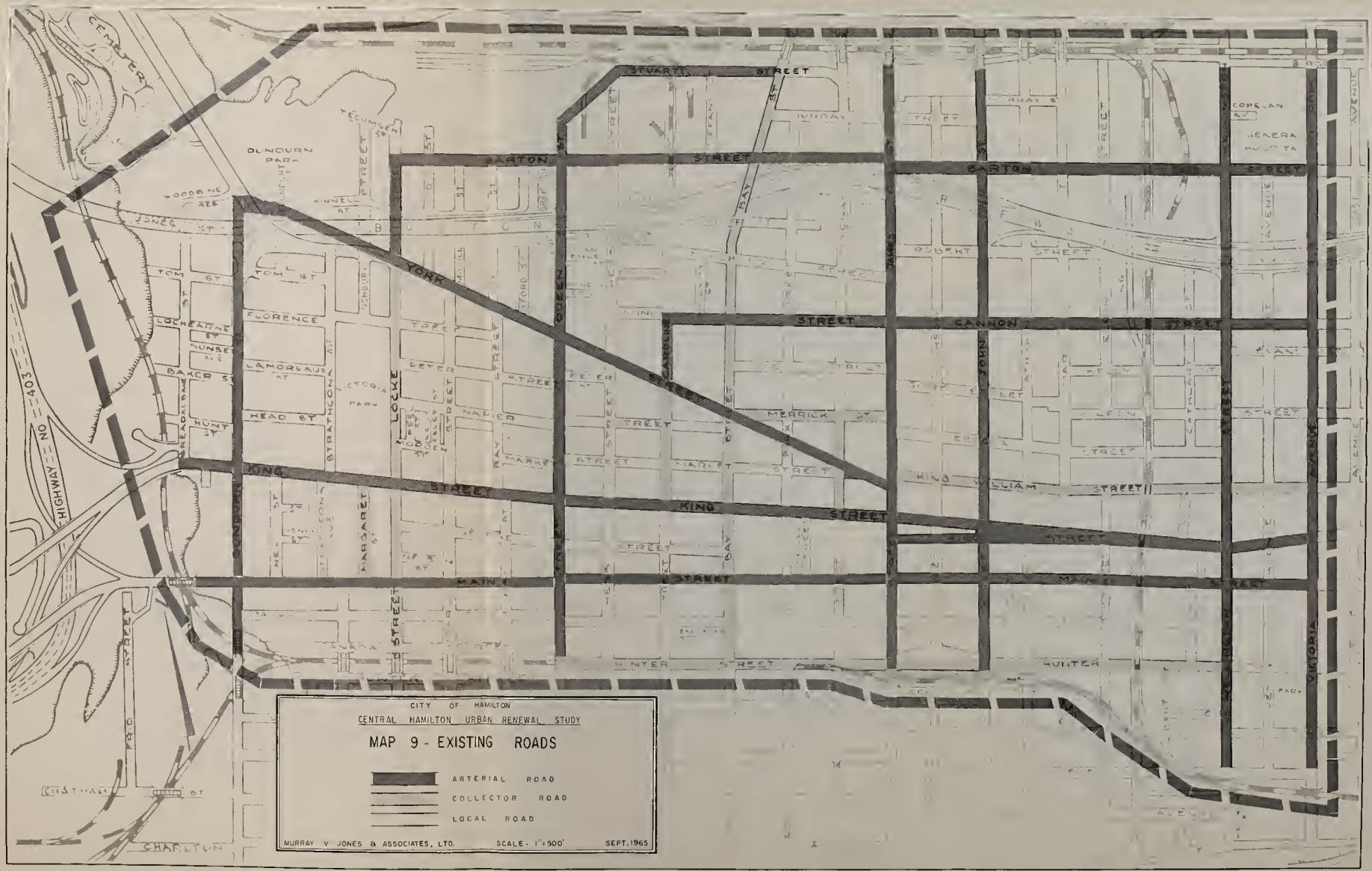
The basic road system within the renewal area is summarized in the following table and is illustrated on Map 9. The table indicates the prevailing function of the roadway (arterial or collector) as well as right-of-way width, direction of travel and the street numbers within the limits of the area. Also included is a highway designation where the street serves to connect the peripheral provincial highway systems.

Street Name		Type	Hwy. No.	R.O.W. (feet)	One Directional	Street Numbers to Odd	Even
Barton St.	East	Arterial		66		299	302
	West	"		66		325	316
Cannon St.	East	"		66		297	298
	West	" *		66		147	136
Dundurn St.	North	"	6	66		173	160
	South	"		66		93	94
James St.	North	"		66	South	351	346
	South	"	6	66	South	75	100
John St.	North	"		66	North	301	320
	South	"	6	66	North	105	98
King St.	East	"	6 & 8	60-66 60-66	West	433	414
	West	"	6 & 8	78-113	West	621	672
Main St.	East	"	6 & 8	66	East	325	336
	West	"	6 & 8	66	East	471	472
Queen St.	North	"		66	South from Barton St.	237	238
	South	"		66	South	111	102
Stuart St.		" *		50		101-231	-
Victoria St.	North	"		80	North to Barton St.	269	350
	South	"		80	North	181	164
Wellington St.	North	"		66	South from Barton St.	297	334
	South	"		66	South	163	158
York St.		"		66	East from Bay to MacNab St.	649	518
Caroline St.	North	"		50	South from	61	56
		Collector		50	Cannon St.	115	106
Locke St.	North	Arterial		66		133	126
		Collector		66		205	208
	South	Arterial		66	North from Main to King	119	122
Bay St.	North	Collector			North to Cannon St.	301	290
	South	Collector			North	-	100
Hunter St.	East	" *		66	West	243	242
	West	"		66	West	-	210
King William St.		"		66	East to Wellington St.	315	336
MacNab St.	North	" *		40-66	North	61	80
Merrick St.		"		66	West	81	108
Margaret St.		"	6 & 8	66	South	69	74

---

*Part only; remainder of street within area is local in function.

Source: Department of Engineering, City of Hamilton


CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 9 - EXISTING ROADS
ARTERIAL ROAD
COLLECTOR ROAD
LOCAL ROAD
MURRAY V JONES & ASSOCIATES, LTD.
SCALE - 1"=500'
SEPT. 1965
CEMETERY
DUNDURN PARK
JONES ST
YORK STREET
FLORENCE STREET
LOCHEARNE ST
LAMORGAUR AVE
HEAD ST
HUNT ST
VICTORIA PARK
NAPIER STREET
MARKET STREET
KING STREET
MAIN STREET
HUNTER STREET
BARTON STREET
CANNON STREET
MERRICK ST
KING WILLIAM STREET
LOCKE STREET
BAY STREET
JOHN STREET
VICTORIA AVENUE
MARGARET AVE
HIGHWAY NO 403
CHATHAM ST
SHAFTON

The 13 miles of arterial road and 7 miles of collector roads listed on Page 11 vary considerably in age and remaining life of both pavement and sidewalk. Some impression of the required reconstruction program may be derived from the following percentages of remaining life related to length of pavement and sidewalk for the overall major road system within the area. The figure for sidewalks applies to both sides of all arterial and collector roads (i.e. the actual length is about twice that of the pavement).

Remaining Life (Years)	Arterial Roads		Collector Roads	
	Pavement	Sidewalk	Pavement	Sidewalk
0	29%	57%	12%	34%
2 to 3	10%	4%	6%	-
5	6%	2%	20%	12%
10	21%	14%	11%	2%
15	9%	2%	6%	34%
20	13%	11%	34%	6%
25	2%	10%	11%	12%

Source: Department of Engineering, City of Hamilton

Not included in the above figures are some 80 other streets which perform a more localized function within the renewal area. As evidenced by the following percentages there is a great diversity not only in right-of-way but also in the type of pavement. The figures relate to numbers of roads rather than to their actual length; the type of pavement is a percentage of roads, again not related to the length of the right-of-way.

Type of Pavement -	Asphalt on concrete	- 18%
	Asphalt on granular base	- 25%
	Surface treated	- 57%

Source: Department of Engineering, City of Hamilton

Width of Right-of-Way	Number of Roads	%
60 to 66 feet	36	46
50 to 59 feet	17	21
40 to 49 feet	15	19
20 to 39 feet	6	7
Unclassified	6	7
	80	100

Source: Department of Engineering, City of Hamilton

Nearly half of the length of the overall local road system is in need of reconstruction or replacement within the next three years. This total includes all roads classified as a surface treated type in addition to those of concrete or granular base which are in current disrepair. The sidewalks (largely single sided on local roads) are in similar condition with almost 60% of their total length being classified as having 0 to 3 remaining life years.

(b) Railways

The City of Hamilton is served by two railway systems - the Canadian National Railway and the Toronto, Hamilton and Buffalo Railway. The facilities affecting the renewal area include the Grimsby-Oakville subdivision of the C.N.R., which serves as a northern boundary to the area, the Welland-Waterford subdivision of the T.H. & B., which likewise serves as a boundary for the renewal area on the south, and the Hagersville subdivision which runs through the area on a north-south axis along Ferguson Avenue. All of the facilities mentioned have marshalling yards within (or in close proximity to) the urban renewal area.

The major C.N.R. yard (Stuart Street) is appurtenant to the Grimsby-Oakville line and extends along the harbour between Bay Street and Dundurn Park. A further concentration extends east of Bay Street to John Street in association with the C.N.R. station on Murray Street. The T.H. & B. yard is of more limited size and is related to the joint T.H. & B. and C.P.R. station on Hunter Street.

The third area is the Ferguson Avenue yard of the C.N.R. and the only such facility directly within the renewal area. It is primarily used for trucking (express and piggy-back) and will eventually be closed and the function transferred to Stuart Street. The line, however, will continue to be required by the C.N.R. and removal from Ferguson Avenue becomes a problem of relocation. Until this problem can be resolved the Hagersville subdivision will continue to cross 10 east-west streets at grade in the area with from 8 to 12 trains per day.

9. TRAFFIC, PARKING, PUBLIC TRANSPORTATION AND PEDESTRIAN ACTIVITY

(a) Traffic Volumes

A comparison of traffic volumes is indicative of the relative importance of any route as part of the road system for the renewal area. Map 10 illustrates the average 24-hour vehicular volumes on those streets serving the area in 1963.

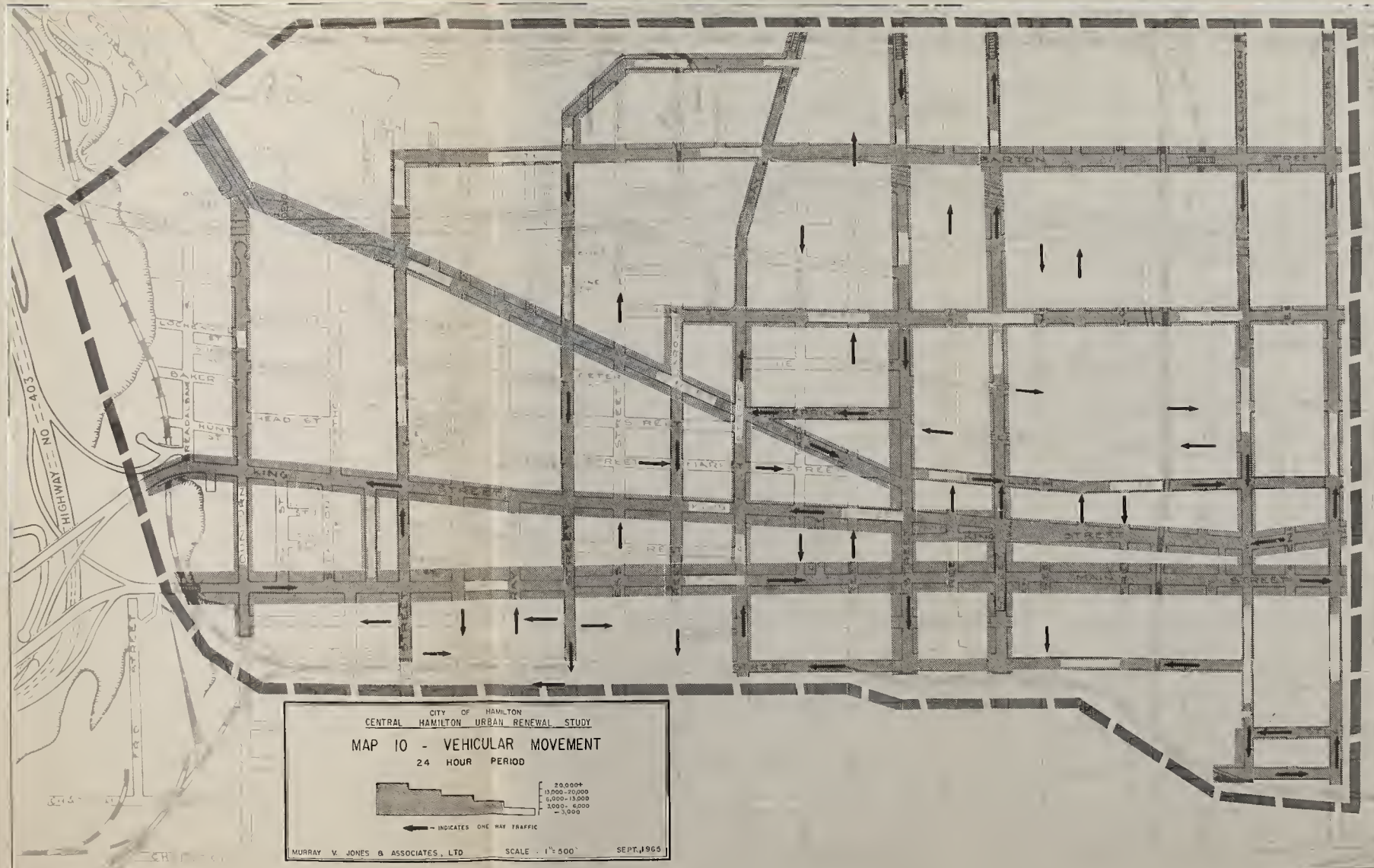
The most heavily travelled routes are the east-west arterials: York Boulevard (32,000 vehicles daily), Main Street (22,000 to 28,000), King Street (16,000 to 25,000), and York and Barton Streets (15,000 to 20,000 vehicles daily). James and John Streets are the major north-south routes with volumes of 13,000 to 20,000 vehicles daily.

Map 10 also illustrates the resultant effect of the one-way street system on specific route volumes within the area. A further indication of this is given in the following table, which enumerates the vehicles entering and leaving the central business district between 6:30 a.m. and 11:30 p.m. in October 1961. The cordon area involved is bounded by Cannon, Wellington, Hunter and Queen Streets.

Cordon Count of 17 Hour Vehicular Volumes on Main Routes
Serving the Central Business District, October 1961

Location of Vehicular Count	Inbound Vehicles	Outbound Vehicles	Total Vehicles
North of Cannon Street	27,015	19,357	46,372
- on Wellington Street	4,524	-	4,524
- on Catherine Street	3,074	1	3,075
- on John Street	-	7,045	7,045
- on James Street	10,606	-	10,606
- on MacNab Street	-	2,866	2,866
- on Bay Street	1,568	2,978	4,546
- on Queen Street (north of York Street)	3,804	2	3,806
- remaining streets	3,439	6,465	9,904
West of Queen Street	29,857	24,491	54,348
- on York Street	8,810	6,571	15,381
- on King Street	-	16,555	16,555
- on Main Street	19,642	-	19,642
- remaining streets	1,405	1,365	2,770
South of Hunter Street	24,538	32,241	56,779
- on Queen Street	3	7,083	7,086
- on Hess Street	2,052	-	2,052
- on Bay Street	5,701	-	5,701
- on James Street	-	15,577	15,577
- on John Street	15,608	-	15,608
- on Wellington Street (north of Young Street)	1	5,686	5,687
- remaining streets	1,173	3,895	5,068
East of Wellington Street	30,571	32,313	62,884
- on Main Street	-	23,182	23,182
- on King Street	17,817	-	17,817
- on Cannon Street	6,439	5,074	11,513
- remaining streets	6,315	4,057	10,372
Total Vehicular Count	111,981	108,402	220,383

Source: City of Hamilton Traffic Department


CEMETERY
BARTON STREET
KING STREET
MAIN STREET
HUNTER ST
BAKER
HIGHWAY NO 403
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 10 - VEHICULAR MOVEMENT
24 HOUR PERIOD
20,000+
13,000 - 20,000
6,000 - 13,000
3,000 - 6,000
- 3,000
INDICATES ONE WAY TRAFFIC
MURRAY V. JONES & ASSOCIATES, LTD
SCALE 1" = 500'
SEPT., 1965

The volumes shown are indicative of the orientation of urban growth, predominantly to the east, as well as to the south and west. The importance of Main, King, York, James and John Streets as the arterial routes connecting the fringe to the primary employment centres is also evident.

The discrepancy between the inbound and outbound volumes at cordon points is due in part to circuitous origin - destination routes of vehicles; the variance in the total volumes is related to the 3,000 vehicles estimated to be within the central area at 11:30 p.m.

The fact that nearly 112,000 vehicles entered the central business district where only 15,600 persons were actively employed is a significant aspect of the 1961 traffic survey. It appears that most of these vehicles made through trips or shopping and business trips. The above-capacity volumes on the east-west arterials indicate a wider than local function and accordingly support the need for an east-west expressway outside the cordon area.

(b) Parking

The results of a 1965 survey of off-street private and public parking facilities is shown on Map 11 and summarized in the following table.

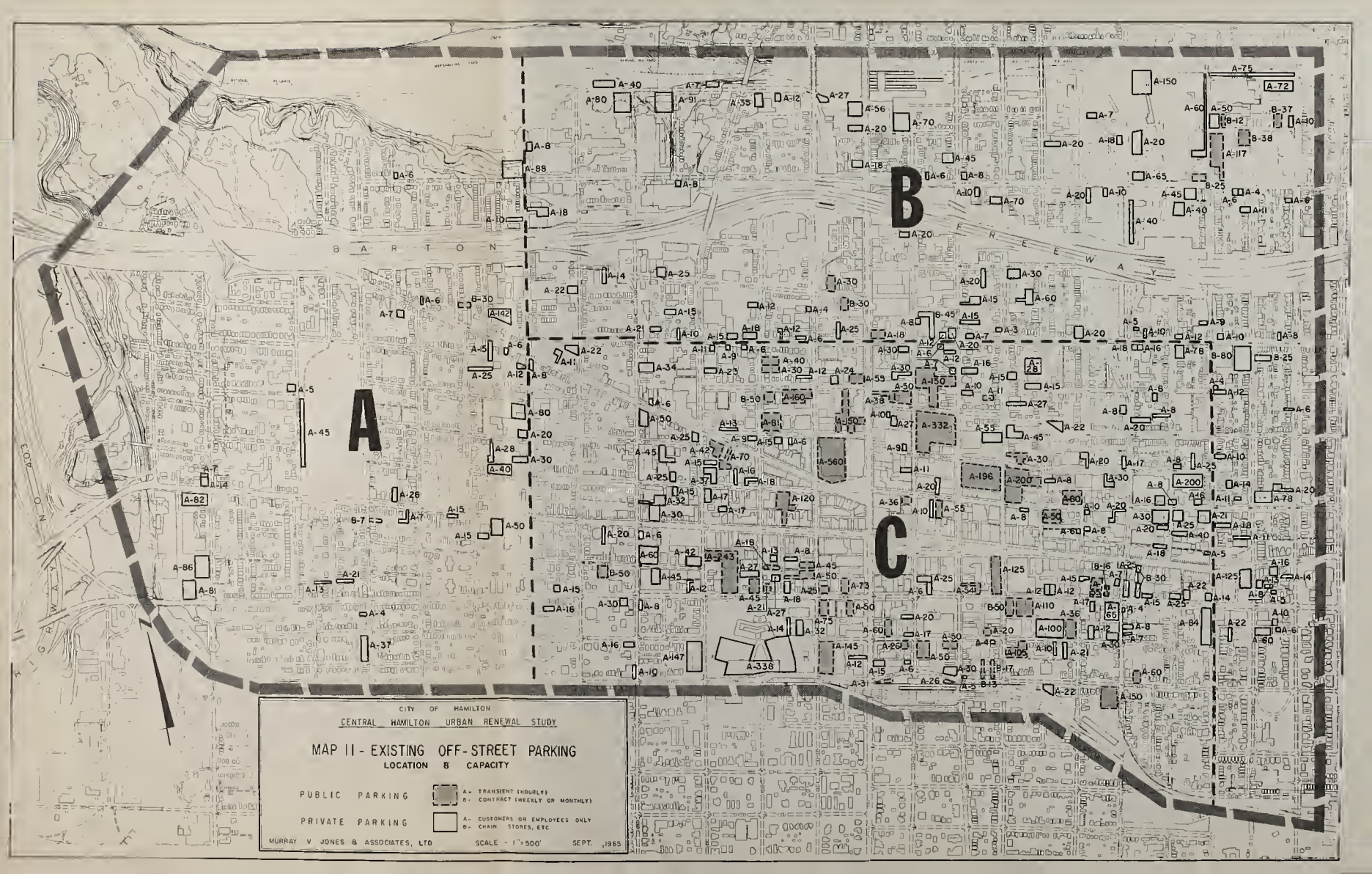
Off-street Private and Public Parking Capacities in Specified Areas, 1965

Area	Private				Public				Total	
	A	B	Sub-Total	%	A	B	Sub-Total	%	No.	%
Area A	1,068	-	1,068	14.5	-	57	57	1.1	1,125	9.2
%	94.9		94.9			5.1	5.1		100.0	100.0
Area B	2,615	150	2,765	37.7	165	142	307	6.4	3,072	25.2
%	85.1	4.9	90.0		5.4	4.6	10.0		100.0	100.0
Area C[1]	3,484	30	3,514	47.8	4,284	195	4,479	92.5	7,993	65.6
%	43.6	0.4	44.0		53.6	2.4	56.0		100.0	100.0
Total	7,167	180	7,347	100.0	4,449	394	4,843	100.0	12,190	100.0
%	58.8	1.5	60.3		36.5	3.2	39.7		100.0	

(1) Area C is the Central Business District

Source: City of Hamilton Traffic Department

For convenience of reference, the urban renewal area has been divided into three sub-areas which are outlined on Map 11. The table illustrates that the greatest proportion (60%) of the 12,190 parking spaces within the urban renewal area are in private lots (i.e. those primarily for customer and employee use). Over half (52%) of private spaces are outside the central business district in Areas A and B where they exceed public parking spaces by more than 10 to 1. Less than 10% of the renewal area's available space is west of Queen Street (Area A) while 25% is to the north and east of the central business district (Area B). About 66% of the area's parking space is within the central business district (Area C) where practically all of the public (93%) and nearly half of the private parking facilities (48%) are located.


A
B
C
B A R T O N
F R E E W A Y
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP II - EXISTING OFF-STREET PARKING
LOCATION & CAPACITY
PUBLIC PARKING
A- TRANSIENT (HOURLY)
B- CONTRACT (WEEKLY OR MONTHLY)
PRIVATE PARKING
A- CUSTOMERS OR EMPLOYEES ONLY
B- CHAIN STORES, ETC
MURRAY V JONES & ASSOCIATES, LTD
SCALE - 1"=500'
SEPT. ,1965

For reasons mentioned earlier, the peak accumulation of vehicles within the central business district was estimated to be 7,200 or less than 8% of the average daily vehicular volume (a figure obtained from the Hamilton Area Transportation Plan of 1963). The degree to which present parking facilities are capable of meeting today's demand can be estimated by the usage of available space in 1961 as shown in the following table.

On and Off-street Parking Capacities and Percentage Utilized in the Central Business District, 1961

Type of Parking Space	Total Spaces Available	10:20 a.m. Spaces Used	10:20 a.m. % Used	2:20 p.m. Spaces Used	2:20 p.m. % Used	Vehicles Parked Day Total	Vehicles Parked %
15 minute parking meters	25	21	84	20	80	305	1.2
30 minute parking meters	135	119	80	120	89	1,780	7.1
1 hour parking meters	534	325	61	325	61	4,201	16.8
2 hour parking meters	41	28	69	35	86	227	0.9
15 minute parking	8	2	25	-	-	17	0.1
1 hour parking	211	117	55	87	41	838	3.3
Free curb parking	869	593	68	570	66	1,516	6.1
Illegal parking[1]	-	221	-	198	-	2,861	11.5
Total on-street parking	1,823	1,426	78	1,355	74	11,745	47.0
Total off-street parking	6,884	4,121	60	4,747	69	13,239	53.0
Total all parking	8,707	5,547	64	6,102	70	24,984	100.0

(1) Represents cars parked in front of hydrants, alleys, etc. but excludes cars parked overtime.

Source: City of Hamilton Traffic Department

The table indicates that there were approximately 1,800 on-street and 6,900 off-street parking spaces providing a total capacity for about 8,700 cars. While there were almost four times as many off-street as on-street spaces available, their use was proportionally lower at both peak accumulation

periods. This was due to the relatively greater use of the 15- and 30-minute meters (over 80%) and the high proportion of all cars (12%) that parked illegally. Further, despite the far greater number of off-street spaces, both types of facilities were used almost equally during the day, with 47% of the vehicles using on-street spaces. This is probably related to the use of meter parking for short business and shopping trips.

The high proportion of use given short term (half an hour or less) and 2 hour metered on-street space would seem to indicate that either this type of facility was in short supply or that the remaining on-street spaces were not as conveniently located to serve the area. It is understood that the type and location of meters remains relatively unchanged since 1961.

It can be seen in the preceding table that central area parking facilities for 8,700 cars exceeded the 1961 peak demand of 6,100 cars by 2,600 spaces. The 1,100 off-street spaces added since then plus the 1,800 on-street spaces would provide a present capacity for 9,800 cars. If the increase in demand has been consistent since 1961, present peak accumulation would be 8,300 vehicles which would leave a current surplus of 1,500 parking spaces over demand.

At present parking is prohibited on many portions of renewal area streets and is restricted on others for 11 hours during the day (Map 12). An evaluation of Maps 11 and 12 would appear to indicate that on- and off-street parking facilities are probably deficient in the predominantly residential areas surrounding the central business district. These areas have a reasonably high proportion of car owning households (54%) but the narrow residential lots do not allow for driveway or garage space in many cases. This has resulted in considerable overnight on-street parking as well as during the day by those residents who utilize other means of transportation to travel to work.

CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 12 - PROHIBITED PARKING
NO PARKING ANYTIME
NO PARKING 7.00 A.M — 6.00 P.M
MURRAY V. JONES & ASSOCIATES, LTD.

(c) Public Transportation

Public transportation in the renewal area is provided by bus service through the Hamilton Street Railway Company. Map 13 shows that the transit route system provides adequate area coverage in that most bus stops are within reasonable walking distance and the major traffic generators (major retail and employment centres) are well served. In actual fact, less than a quarter of the blocks within the area are further than one block from a bus line and only a few are more than two blocks distant.

(d) Passenger and Pedestrian Volumes

While 65% of the people entering and leaving the central business district daily do so by car, 19% travel by bus, 12% walk and the remaining 4% travel by truck or bicycle. The following table shows that car and bus passenger cordon volumes were greatest in the south and east while those of truck and bicycle passengers were predominant in the north and west.

Cordon Count of 17 Hour Vehicular Passenger and Pedestrian Volumes on Main Routes Serving the Central Business District, October 1961

Cordon Count Taken From	Total Persons	In Cars		In Buses		Walking		Other[1]	
		No.	%	No.	%	No.	%	No.	%
North of Cannon St.	98,444	56,085	19.6	15,275	18.5	20,145	37.8	6,939	34.4
West of Queen St.	101,951	70,526	24.6	19,498	23.6	6,713	12.6	5,214	25.8
South of Hunter St.	115,944	74,602	26.1	21,849	26.4	15,594	29.2	3,899	19.3
East of Wellington St.	126,075	85,080	29.7	25,993	31.5	10,870	20.4	4,132	20.5
Total Persons	442,414	286,293	100.0	82,615	100.0	53,322	100.0	20,184	100.0
	100.0	64.7		18.7		12.1		4.5	

(1) Trucks and Bicycles

Source: City of Hamilton Traffic Department

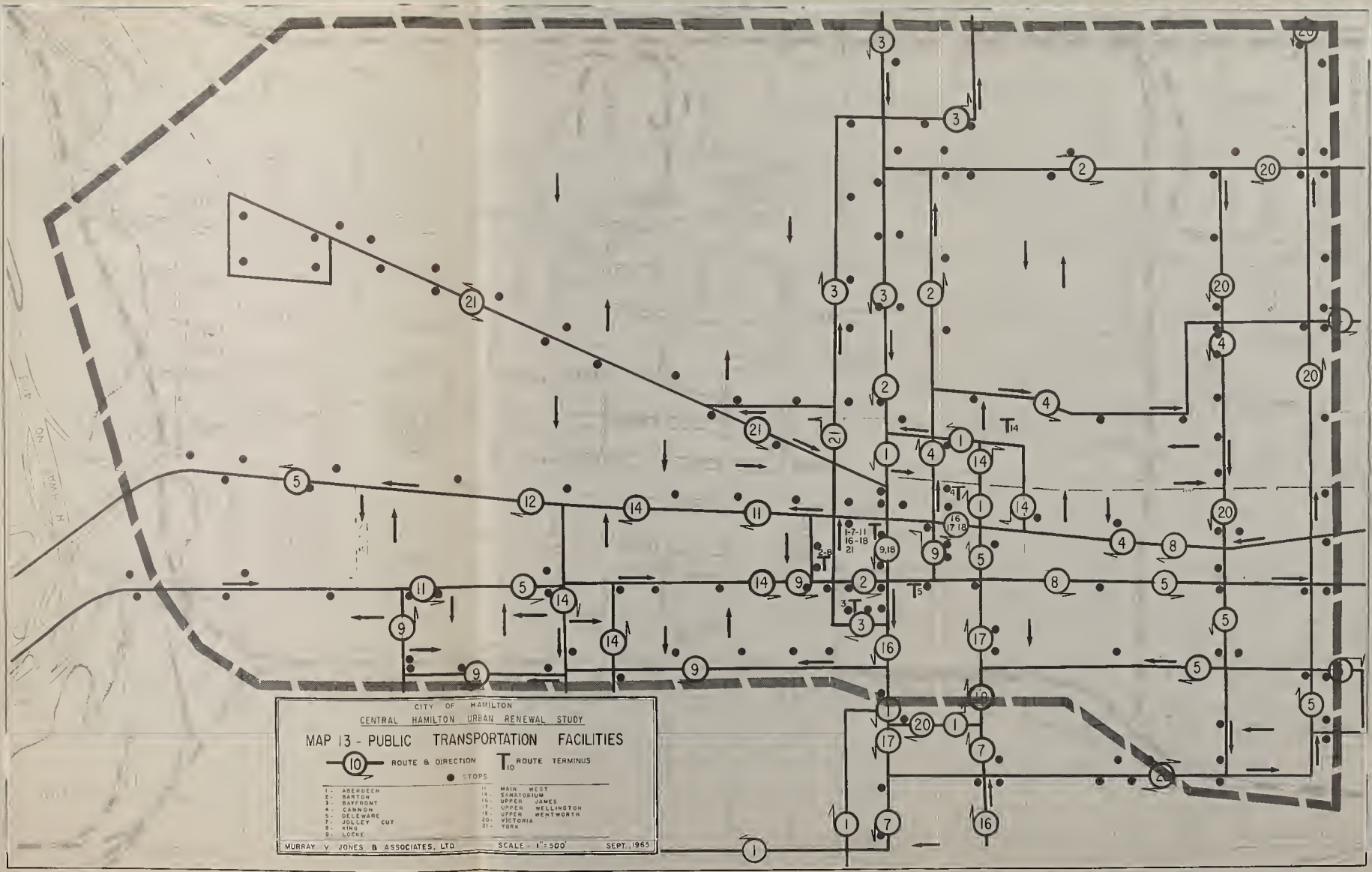
The highest proportions of pedestrian volumes were on the north (38%) and south (29%) cordon perimeters. Volumes were highest on James Street North (7,400 persons) with James Street South and King Street East serving 2,500 to 4,000 persons daily. The pedestrian volumes on the majority of the north-south streets were over 1,000 persons daily.

Pedestrian volumes represent the movement of nearby residents to the major commercial and employment centres in and surrounding the cordon area. North perimeter streets served the industrial areas along Barton Street and local York Street shops while south corridors served the public and commercial complex around James and King Streets. East and west streets from the major residential sections of the renewal area served the industrial area around Barton and Ferguson Streets and local York Street shops respectively.

Pedestrian volumes on all cordon perimeters were influenced by the major commercial facilities along James and King Streets, but were not considered to represent area resident volumes only. A reasonable proportion of shoppers and employees from other Hamilton areas would be represented.

(e) Traffic Accidents

The greatest proportion of the nearly 10,000 accidents occurring in the City of Hamilton in 1963 was in the urban renewal area and predominantly the central business district. The incidence of these accidents was greatest along the main arterial roads and at their intersections. James, John, King, Main, York and Barton Streets had the most numerous accidents with the intersections of York and Dundurn Streets, James and John Streets with King and Main Streets and Barton Street with Victoria and Catherine Streets being notable examples. The number of accidents along the collector and local roads was lower, except at their intersection with arterial roads.


CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 13 - PUBLIC TRANSPORTATION FACILITIES
10 ROUTE & DIRECTION
T10 ROUTE TERMINUS
STOPS
1- ABERDEEN
2- BARTON
3- BAYFRONT
4- CANNON
5- GELEWARE
7- JOLLEY CUT
8- KING
9- LOCKE
11- MAIN WEST
14- SANATORIUM
15- UPPER JAMES
17- UPPER WELLINGTON
18- UPPER WENTWORTH
20- VICTORIA
21- YORK
MURRAY V. JONES & ASSOCIATES, LTD.
SCALE - 1" = 500'
SEPT., 1965

10. PUBLICLY OWNED PROPERTY

In addition to the parks, playgrounds and streets in the area, the City of Hamilton owns a number of properties which accommodate various other municipal facilities and services. It also retains ownership of some properties which previously served a municipal function, lands purchased for proposed street widenings and access roads and properties acquired through non-payment of taxes. Some of the latter properties have been leased for private use.

The following is a list of municipally owned properties together with their location and function:

(a) Municipal Buildings

City Hall - 71 Main Street West

Administration of Justice

- County Court House - 50 Main Street East
- Police Station - 125 King William Street
- Police Garage - 150 Rebecca Street
- Probation Office - 146 Rebecca Street
- City Jail - 165 Barton Street East

Fire Prevention

- Fire Department offices - 59 King William Street
- Fire Halls - 24 Ray Street South
  - 11 Napier Street
  - 35-43 John Street North

Health and Welfare

- Welfare Department offices - 296 Victoria Avenue North
- Health Department offices) Health Centre) - 74 Hughson Street South
- Hamilton General Hospital - 233-279 Barton Street East

Public Library - 55 Main Street West

Garage and Market area - James and York Streets

(b) Public Parks, Playground and Recreation Centres

There are 59.8 acres of parks and playgrounds and one Recreation Centre in the urban renewal area. These are described in the following section on community services.

(c) Other Municipally Owned Property

Hamilton Cemetery - York Boulevard

Municipal Car Parks - there are 35.5 acres in municipally owned parking lots at 140 and 159 King William Street, 22 Mary Street, 150 Wilson Street, 75 John Street North, 90 Park Street North, Hamilton General Hospital Parking Lot and two lots on the north side of Hunter Street East at Hughson Avenue.

Leased property - 37 Strathcona Avenue North
- 44 Hughson Avenue North
- 56 MacNab Street South
- 476 York Street (pt)
- 125 Wellington Street South
- 286 Victoria Avenue North
- 144 Victoria Avenue South

Vacant property - there are about 16 acres of vacant City owned land throughout the area. Much of this acreage is located north of King Street, between Dundurn Street and Highway 403 and on Victoria Avenue South. The remainder is composed of rights-of-way and smaller properties scattered throughout the area.

11. FURTHER REPORTS AND STUDIES

Many existing studies have been utilized in the preparation of this report. Some studies, particularly those relating to social conditions, have helped to provide basic research data and a better understanding of the area and its residents. Others, such as the Hamilton Area Transportation Plan, have directly influenced the study approach and recommendations for the urban renewal area.

Reference is also made to the annual reports of the social and welfare agencies serving the area and the future building proposals within the area of a number of public and private agencies. The following is a list of some of this material:

(1) Parking Survey and Feasibility Report, City Market Site, 1958
- A.D. Margison and Associates

(2) Hamilton Central Business District, 1964
- John Friar, MacMaster University

(3) Hamilton Urban Renewal Study, 1958
- City of Hamilton Planning Department

(4) Preliminary Study Plan for the Hamilton Downtown Area Core
- Hamilton Downtown Association Redevelopment Committee

(5) Report of the Gore Park and Beautification Committee

(6) The Inner City Church in Hamilton, 1962-1964
- Hamilton Presbytery, The United Church of Canada

(7) Single Unemployed Men in Hamilton, 1964
- Social Planning Council of Hamilton

(8) The Old Age Population in Hamilton, 1964
- Social Planning Council of Hamilton

(9) Hamilton Recreation Resources Survey, 1960
- Social Planning Council of Hamilton

(10) Hamilton Area Transportation Plan, 1963
- C.C. Parker and Parsons, Brinckerhoff, Ltd.

(11) Report on the Demand for Federal-Provincial Geared to Income Housing, 1964
- Ontario Department of Economics and Development

(12) North End Urban Renewal Project, City of Hamilton
- Hamilton Urban Renewal Committee

(13) The Social Costs of Urban Renewal, 1964
- Social Planning Council of Hamilton

(14) Hamilton and its Environs, 1945
- J.W. Watson, Canadian Geographic Journal

(15) The Story of Hamilton, 1938
- Mabel Burkholder

(16) The Hamilton Centennial, 1946-1946
- Hamilton Centennial Committee

II COMMUNITY SERVICES

1. EDUCATIONAL

Public Elementary Schools

Public elementary education for the renewal area is provided by 10 schools, 4 of which are located outside the area's boundaries. These are shown with their attendance zones on Map 14 and listed by grade level below.

Located in the Area	Located Outside the Area
Cannon St. P.S. (K to 6)	Central Junior P.S. (K to 6)
Hess St. P.S. (K to 6)	Ryerson Senior P.S. (7 and 8)
King Edward P.S. (K to 6)	Tweedsmuir Senior P.S. (7 and 8)
McIlwraith P.S. (K to 7)	Bennetto P.S. - destroyed by fire. Grades K to 8 attend other schools until rebuilt.
Strathcona Junior P.S. (K to 6)	
West Avenue Junior P.S. (K to 6)	

Two of the schools (both outside the area) are for senior grades 7 and 8 while the remainder provide elementary education from Kindergarten to Grades 6 or 7. All schools except Ryerson, Tweedsmuir and West Avenue schools provide auxiliary classes for slow learning students. The school system is administered by a Board of Education from the Public School Administration Building at 357 Hunter Street West, just outside the renewal area.

The majority of the public school facilities serving the area are obsolete. Over 89% of the 184 classrooms serving the area were built prior to 1926, and 43% were constructed prior to 1900. Over 54% of the pre-1900 and 73% of the post-1900 space is located within the renewal area. Since 1926, 4 classrooms and 4 play assembly rooms have been added and one school built (12 classrooms, 1 double kindergarten and a play assembly room) to serve the area from outside locations; two play assembly rooms have been added to schools within the area.

Since 1960, enrolment in renewal area schools decreased by 4% compared to a 26% enrolment increase in schools which serve the area from outside locations. The former schools are presently operating at only 71% of total capacity compared to 93% for the latter schools. These figures reflect the transitional nature of the renewal area where population continues to decline (7% between 1956 and 1961) while the population of surrounding areas remained basically stable or increased during the same period. Changing ethnic patterns and greater separate school facilities have also contributed to declining public school enrolments.

The Hamilton Board of Education recognizes the need to replace all but one school in the renewal area. The McIlwraith School is considered to be in fair to good condition although substantial renovation is required. Of the four schools serving the area from outside locations, one is new (Queen Victoria), two are in fair condition though requiring extensive alterations (Central and Tweedsmuir) and one would likely be replaced (Ryerson) if future need demands. Bennetto School in the North End Urban Renewal Area was recently destroyed by fire and is being replaced.

The Board is aware that the construction of new schools in locations appropriate to serve existing and future patterns of the renewal area population might result in the consolidation of school plant facilities. One such proposal is to combine the King Edward and Cannon Street schools on a new site. In addition, a new education centre and administration building is planned for April 1967 occupancy as part of the Civic Square proposals. This will replace the present administrative building on Hunter Street which is inadequate in size and may be reconverted to school purposes.

Separate Elementary Schools

The separate school system is administered by the Hamilton Separate School Board from a new building on Mulberry Street within the renewal area. Five schools in this system serve the renewal area, 3 of which are located within its boundaries. These schools and their attendance areas are shown on Map 14 and listed below by grade level.

Located in the Area	Located Outside the Area
Christ the King (K to 8)	St. Patrick's (K to 8)
St. Thomas Aquinas (K to 8)	St. Joseph's (K to 8)
St. Mary's (K to 8)	

Two of these schools (Christ the King and St. Joseph's) do not provide auxiliary classes; all schools provide up to Grade 8 education, kindergarten classes having been introduced in 1964.

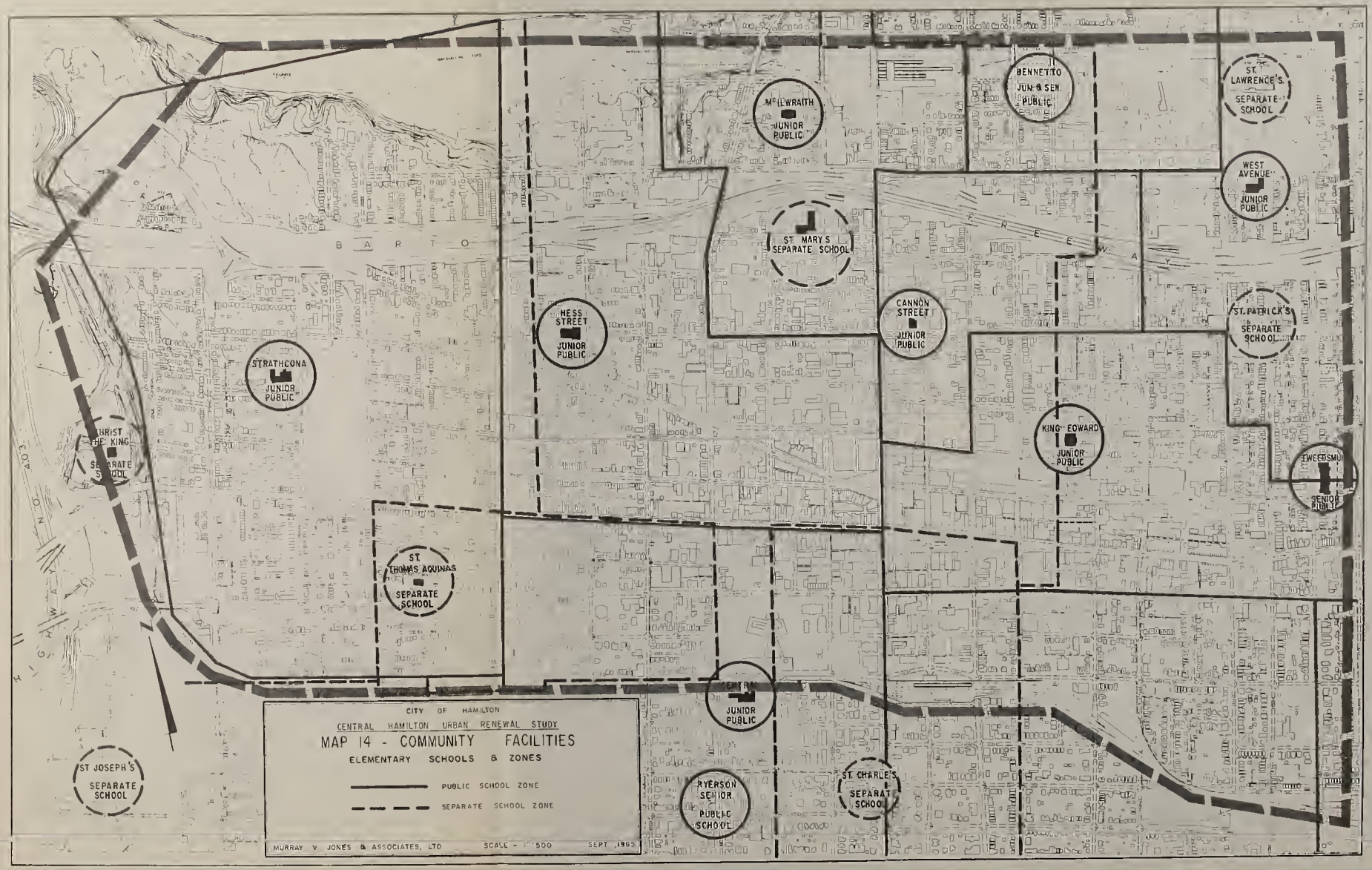
There are 88 separate elementary classrooms serving the renewal area of which 60% (53 classrooms) are located within its boundaries. The majority of the total space (83%) has been built since 1950 with over 52% constructed since 1960. Accommodation in the renewal area itself is predominantly (72%) post-1960 as represented by St. Thomas and St. Mary's Schools. The remaining classrooms (15) are in Christ the King School and consist of the 9-room original structure and a 6-room addition built in 1932 and 1956 respectively.

The recent renewal and expansion of facilities has resulted in a substantial increase in separate school enrolment. Inside the renewal area, this has amounted to 33% since 1960, compared to a 9% increase in schools serving the area from outside locations and is attributable to the fact that persons of Catholic faith now represent over 40% of the area's population and over 60% of those residing between York and James Streets and the C.N.R. tracks. In the latter area, about 36% of the population is of Italian origin.

The present expansion of area facilities is continuing with the opening in September, 1965 of a 9-room school (St. Charles) immediately adjacent to the southern boundary of the area. This will further complement the generally good to excellent separate school facilities in and adjacent to the renewal area with the sole exception being the 6-room St. Patrick's School wing built in 1912 which currently requires renovation.

Secondary Schools

Separate secondary school facilities located within the renewal area consist of Loretto Academy at 398 King Street West (a private Catholic girls' school) and the Cathedral Boys' and Girls' High Schools at 376 and


CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 14 - COMMUNITY FACILITIES
ELEMENTARY SCHOOLS & ZONES
PUBLIC SCHOOL ZONE
SEPARATE SCHOOL ZONE
MURRAY V JONES & ASSOCIATES, LTD
SCALE - 1" = 500
SEPT 1965
McILWRAITH JUNIOR PUBLIC
BENNETTO JUN & SEN. PUBLIC
ST. LAWRENCE'S SEPARATE SCHOOL
WEST AVENUE JUNIOR PUBLIC
ST MARY'S SEPARATE SCHOOL
HESS STREET JUNIOR PUBLIC
CANNON STREET JUNIOR PUBLIC
ST. PATRICK'S SEPARATE SCHOOL
STRATHCONA JUNIOR PUBLIC
KING EDWARD JUNIOR PUBLIC
CHRIST THE KING SEPARATE SCHOOL
ST THOMAS AQUINAS SEPARATE SCHOOL
JUNIOR PUBLIC
ST JOSEPH'S SEPARATE SCHOOL
RYERSON SENIOR PUBLIC SCHOOL
ST. CHARLES SEPARAT SCHOOL
BARTON
FREEWAY
403

and 467 Main Street East respectively. Classroom space for Grades 9 and 10 is rented by (and under the administration of) the Hamilton Separate School Board. Grades 11 to 13 in the high schools are operated on a private school basis. Current total secondary enrolment at the Cathedral Schools is about 800 students and at the Academy is 218 students. No estimates are available for the proportion of these totals represented by renewal area pupils.

All public secondary school facilities are located outside the area and consist of Parkview Junior Vocational School, 60 Balsam Street North (a continuation school for slow learning students) and Central and Westdale Composite Secondary Schools at 192 Wentworth Street North and 700 Main Street West, respectively.

Enrolment at these schools, administered by the Hamilton Board of Education, is approximately 375, 3,100 and 2,200 students respectively. While the proportion of total students in attendance from the renewal area is not known, the Board recognizes that the service areas for these schools are too large and school plant facilities are over-extended. The Board therefore proposes to build two junior vocational schools as well as a secondary school within the renewal area. These additional schools will accommodate central area students and ease the congested facilities at the other secondary schools.

Other Schools

In addition to being the location for most of the City's business and trade schools, the renewal area is served by 4 nursery schools, only one of which is located within the area. The latter is located at the Wesley Centre and is the only public day nursery in the City. Special schools such as the Deaf and Hard of Hearing pre-school clinic at 639 Barton Street East, the Retarded Adults Training Centre and the Easthaven School for Retarded Children at 91 East Avenue South are immediately adjacent to the area. Facilities for the training and rehabilitation of the retarded are inadequate at their present location and a new children's school is proposed for a site in the north west portion of the renewal area. A new Adult Training Centre has also been proposed although a site has not yet been selected.

2. INSTITUTIONAL

The Hamilton General Hospital is the only civic hospital located within the renewal area although a private hospital at the northeast corner of Queen and Barton Streets is operated for the employees of the Steel Company of Canada. There are also three private nursing homes in the area: the Clarion Nursing Home for Men at 120 Hunter Street, St. Anna Nursing Home for the Elderly at 146 Market Street and the Victoria Nursing Home at 176 Victoria Avenue North. All of the above, and in particular the 650-bed civic hospital, perform a city-wide as opposed to local function.

The City of Hamilton and the County of Wentworth both use the Barton Street Jail and are presently considering the construction of a regional county jail for joint use with Halton County. This would serve to replace the present 90-year old structure and form part of a system of regional county jails being built throughout the Province. Its location has not yet been decided but it is unlikely that it would be within the renewal area.

3. RELIGIOUS AND CULTURAL

There are some 49 churches, missions and religious societies located within the renewal area. Though most of these serve in a local or community capacity, about 6 metropolitan churches would be represented. The major denominational churches account for over half of the total: Catholic (8), United (5), Anglican (4), Baptist (4), Presbyterian (3), Lutheran (3) and Jewish (2). The remaining are halls or missions of non-denominational, Gospel or philosophical faiths. Ten are major European denominational churches and reflect the high proportion (36%) of renewal area residents who were born outside Canada.

Cultural facilities in the downtown renewal area are limited to the central public library, a small historical museum at Dundurn Park and a number of theatres concentrated in the Gore Park area.

The development of a civic and cultural core in the City of Hamilton would assist in alleviating the lack or inadequacy of present facilities. The library has outgrown its present structure and is planning to rebuild within the near future. Preliminary plans include expanded facilities, a 250-seat theatre-auditorium and 3 or 4 small meeting rooms. It is also considered likely that the Art Gallery of Hamilton will relocate from its present site at McMaster University to a more central location within the next five years.

The City of Hamilton Centennial program includes provision for a Civic Auditorium with accommodation for 2,000 persons, an 800-seat theatre-playhouse and convention space for 600 persons. Another facility proposed for the central area is a planetarium with seating capacity for 155 persons and display rooms for science and industrial exhibits.

4. RECREATIONAL

As previously mentioned, there are 59 acres of park and playground space located within the renewal area. The acreage and facilities provided are listed below and illustrated on Map 15.

- Dundurn Park with 32.5 acres provides a playground, baseball diamond and pavilion
- Victoria Park with 14.4 acres provides an ice skating rink, 2 hockey cushions, wading pool, playground, 4 softball diamonds, a hardball diamond and 3 tennis courts
- Harvey, Gore and Wellington Parks are 8.9, 0.9 and 0.7 acres respectively and have no active recreational facilities.
- Wilcox and Wellington Playgrounds are 0.7 and 0.5 acres in size and have wading pools
- McLaren Playground with 0.5 acres provides no active recreational facilities although programs are held for school-age children
- there are in addition about 4.7 acres in school yard play areas

The following recreational facilities are also located in the area:

- Central Memorial Community Centre provides an indoor swimming pool and playground
- Wesley Community Centre has auditorium facilities

- Y.M.C.A. offers a running track, basketball court, swimming pool, gymnasium, badminton court, bowling alleys, handball courts and games rooms

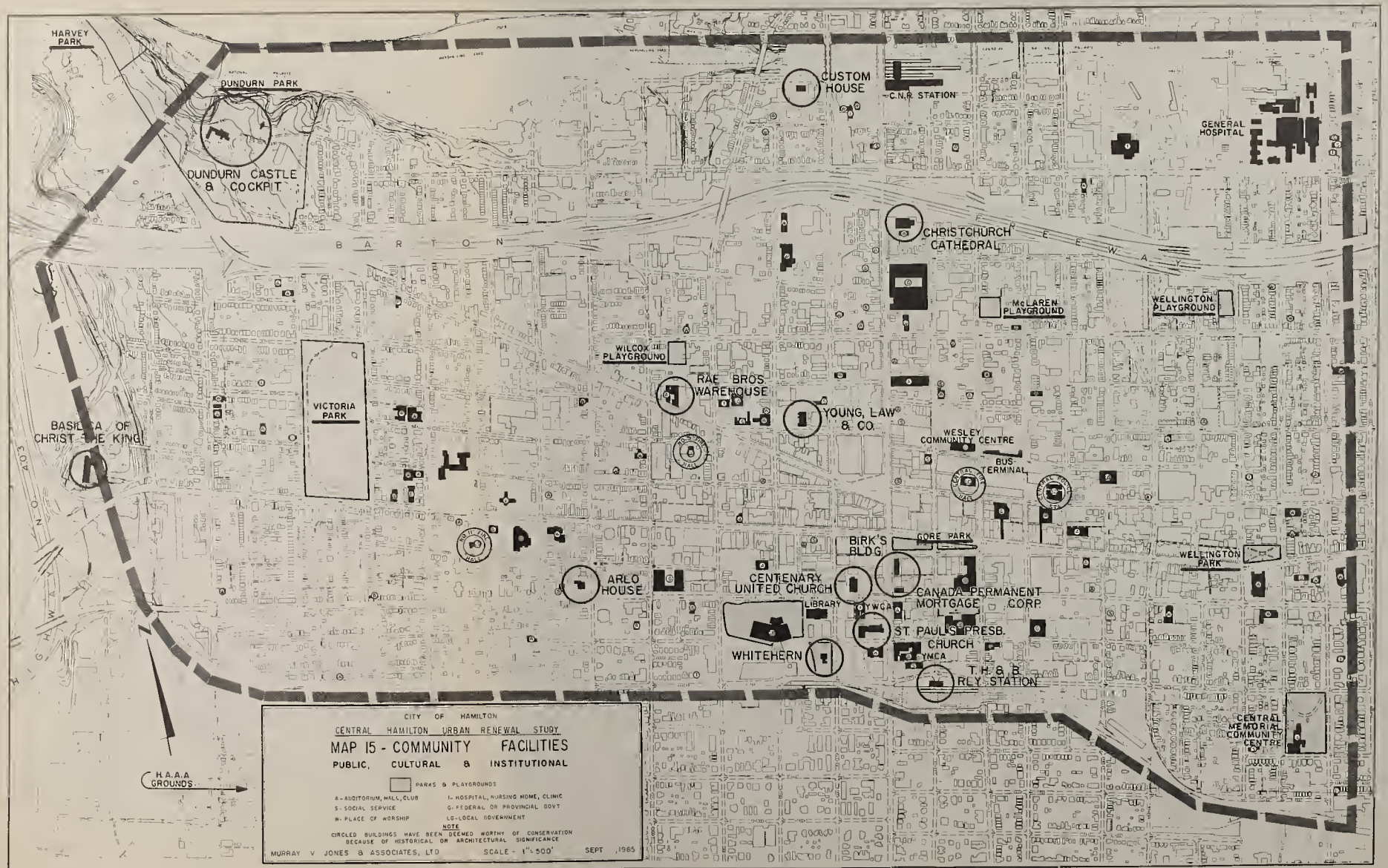
- Y.W.C.A. presently offers a badminton court, basketball court, swimming pool, gymnasium and meeting rooms and has plans to erect a 5-storey building at MacNab and Hunter Streets in the near future.

The Hamilton Amateur Athletic Association Grounds are adjacent to and serve the south-west portion of the renewal area. A variety of facilities including 3 softball diamonds, rugby and soccer field, hockey rink, ice skating rink, 8 tennis courts and a playground are provided. Similarly, the Seniors' Club of Hamilton serves the south-east portion of the area from its outside location and provides the only specific organized programs for the elderly as well as participation in hobbies and games. There are an additional 7.8 acres of school yard facilities peripheral to the area.

The Hamilton Recreation Department administers the recreational facilities, programs and staff for the City of Hamilton's parks, playgrounds and community centres and is responsible for the use of public and separate school gymnasiums by permit. Organized programs include instruction and tournament play in many sports, crafts, music and art classes, tours and hikes, summer teen dances and special events. The Department assists and advises the Volunteer Community Councils throughout the City in their local park and school programs. These programs include baseball, bowling and hockey leagues, tap and baton classes, special holiday celebrations and social evenings.

Organizations such as the Boy Scouts, Girl Guides, Boy's Brigade, Canadian Girls in Training and others also provide educational, recreational and social programs in many city churches, school gymnasiums and auditoriums. In addition some 53 community and neighbourhood halls and clubs have facilities for private and public recreational and social activities.

The Hamilton Recreation Resources Survey, 1960, sponsored by the Hamilton and District Social Planning Council found the area's facilities west of Queen Street and north of Main Street to be adequate. Certain recommendations were made for portions of the remaining area:


HARVEY PARK
DUNDURN PARK
DUNDURN CASTLE & COCKPIT
CUSTOM HOUSE
C.N.R. STATION
GENERAL HOSPITAL
B A R T O N
E A S T W A Y
CHRISTCHURCH CATHEDRAL
McLAREN PLAYGROUND
WELLINGTON PLAYGROUND
WILCOX III PLAYGROUND
RAE BROS. WAREHOUSE
YOUNG, LAW & CO.
VICTORIA PARK
BASILICA OF CHRIST THE KING
WESLEY COMMUNITY CENTRE
BUS TERMINAL
GORE PARK
WELLINGTON PARK
BIRK'S BLDG.
ARLO HOUSE
CENTENARY UNITED CHURCH
LIBRARY
YWCA
CANADA PERMANENT MORTGAGE CORP
ST. PAUL'S PRESB. CHURCH
YMCA
WHITEHERN
T.H. & B. RLY. STATION
CENTRAL MEMORIAL COMMUNITY CENTRE
H.A.A.A. GROUNDS
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 15 - COMMUNITY FACILITIES
PUBLIC, CULTURAL & INSTITUTIONAL
PARKS & PLAYGROUNDS
A - AUDITORIUM, HALL, CLUB
S - SOCIAL SERVICE
W - PLACE OF WORSHIP
H - HOSPITAL, NURSING HOME, CLINIC
G - FEDERAL OR PROVINCIAL GOVT
LG - LOCAL GOVERNMENT
NOTE
CIRCLED BUILDINGS HAVE BEEN DEEMED WORTHY OF CONSERVATION BECAUSE OF HISTORICAL OR ARCHITECTURAL SIGNIFICANCE
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SCALE - 1" = 500'
SEPT. 1965

- 4 or 5 acres of extra parkland and the development of McLaren Playground as a neighbourhood centre was recommended for the area between Cannon, Ferguson and Queen Streets and the C.N.R.

- 3 or 4 acres of extra neighbourhood parkland was suggested for the area between Cannon, Ferguson and Hess Streets and the T.H. & B. Railway

- a neighbourhood centre around Cannon and Victoria Streets and the development of Wellington Playground as a neighbourhood park was recommended for the area between Ferguson, King and Victoria Streets and the C.N.R.

- the development of Central Memorial Community Centre as a neighbourhood centre and the acquisition of additional parkland was recommended for the area bounded by Ferguson, King and Victoria Streets and the T.H. & B. Railway.

Though not implemented, these recommendations were incorporated in a 25-year open space land use plan prepared by the City Departments of Planning, Parks and Recreation in conjunction with the Board of Education. The plan provides for the future division of the City into 11 districts, each having a district centre and supervisor together with neighbourhood and community facilities. While not formally adopted, the initial step of the plan is progressing with the proposed division of the City into 3 equally populated districts each with a district supervisor. The Central Memorial Community Centre has been serving in a district capacity for over a year, and other district centres are being planned. One of 4 district centres is associated with the Bennetto Public School now under construction in the North End Urban Renewal Area.

5. SOCIAL

Public

The two major public agencies which provide social services to Hamilton and the renewal area are the Health and Welfare Departments of the Corporation of the City of Hamilton.

The Hamilton Health Department operates under a Board of Health and a Medical Officer of Health with powers and duties defined in the Public Health Act and the City's Health By-law. The Department provides a public service related to:

(a) the promotion of health

- a public, separate and secondary school medical program providing chest, dental and mental health clinics, ear and eye examinations, inoculations and health programs

- public health nursing programs in schools and on home visits, the latter providing pre- and post-natal care, health supervision and child welfare care

- clinical care for dental, tubercular, mental and contagious disease problems

(b) the prevention of disease

- food and milk inspections in markets, restaurants, dairies, food shops and hotels, etc.

- sanitary inspections of premises and property to maintain minimum health standards

- laboratory services relating to the above programs in the preparation of vaccines, culture analysis, food, water and milk testing, etc.

The Department serves the City of Hamilton through 3 district offices, the main office being located at 74 Hughson Street South. At present there are 4 health clinics in the renewal area: Hess Street and Strathcona Avenue Schools, the Church of the Redeemer at 225 Park Street North and at the Hughson Street building. These clinics are open to both adults and children and operate at least once a week during the opening term of school and twice a month for the remaining school year. The present clinic buildings are old and the space is poorly planned for its clinical function. Well designed clinics should be considered as an integral part of any new schools constructed in the renewal area.

Although the Board was unable to provide a breakdown of their nursing service caseload, it was estimated that problems with school children in the renewal area run at least 30% higher than in the city as a whole. Similarly, premise and property inspections in the area were estimated to represent 26% of the City total.

The worst blocks in the renewal area from a health point of view are those bounded by Jackson, James, Barton and Wellington Streets and by Stuart, James, York and Hess Streets. It was noted that much of the poorer accommodation is found in apartments over stores which receive little attention from landlords. Vermin, garbage, roof and drain problems are

proportionally greater here than elsewhere in the city, as are complaints resulting in court action. The majority of the large number of rooming houses in the area, which are licensed and inspected by the Department, meet their minimum standards.

The Hamilton Welfare Department is under the direction of the Public Welfare Board and provides general welfare assistance, indigent hospitalization, child maintenance, pension supplements, nursing and homemaker's services, post sanatoria care and indigent burial services to the needy. Welfare offices are located at 290 Victoria Avenue North.

Less than half of the welfare recipients report directly to the office or are on a permanent mailing list. The remaining recipients (52% in 1964) are assigned to field workers in 8 Hamilton districts. Field worker caseload figures were available for 2 of these districts which cover most of the renewal area. These are shown and defined as part of the following quinquennial summary of welfare recipients.

City of Hamilton
Welfare Department

WELFARE RECIPIENTS OF ALL TYPES

Year	Heads of Families	Dependents	Individuals	Total
1960	1,240	4,019	1,272	6,531
1961	1,393	4,496	1,292	7,181
1962	1,412	4,507	1,267	7,186
1963	1,378	4,401	1,124	6,903
1964	1,190	3,769	1,110	6,069

OF THE ABOVE - THE FOLLOWING WERE
ASSIGNED TO FIELD WORKERS IN EIGHT DISTRICTS

Year	Heads of Families	Dependents	Individuals	Total
1960	693	2,332	50	3,075
1961	994	3,366	56	4,416
1962	1,046	3,489	30	4,565
1963	924	3,085	15	4,024
1964	708	2,459	7	3,174

OF THE CASES ASSIGNED TO DISTRICT
FIELD WORKERS THE FOLLOWING WERE IN THE
URBAN RENEWAL AREA - EITHER IN WHOLE OR IN PART

District 1 - west side of James Street to Locke, north of King Street to the bay.

Year	Heads of Families	Dependents	Individuals	Total
1960	139	474	8	621
1961	139	524	11	674
1962	137	484	6	627
1963	112	389	3	504
1964	79	333	2	414

District 2 - east side of James Street to Wellington from Arkeldun to the bay.

Year	Heads of Families	Dependents	Individuals	Total
1960	140	423	5	568
1961	139	455	8	602
1962	129	420	2	551
1963	114	359	3	476
1964	104	338	-	442

COMBINES DISTRICTS 1 & 2 WITH PERCENTAGE
OF TOTAL OF EIGHT DISTRICTS REFLECTED

Year	Heads of Families	Dependents	Individuals	Total	Total as Percentage of Total Districts	District Totals
1960	279	897	13	1,189	38.7%	3,075
1961	278	979	19	1,276	28.9%	4,416
1962	266	904	8	1,178	25.8%	4,565
1963	226	748	6	980	24.3%	4,024
1964	183	671	2	856	26.9%	3,174

These figures indicate that most family units are assigned to a field worker while individual recipients tend to report directly to the Welfare office. Welfare families in District 1 have been consistently larger in size than those in District 2 or the City of Hamilton. This was particularly true in 1964 when District 1 families had 4.2 dependents compared with 3.3 and 3.5 dependents in District 2 and City families respectively.

For the past five years, the combined districts have represented from 24.3% to 38.7% of the total district cases although geographically they comprise less than 10% of the City's area and contain less than 12% of the

city's population. While the total number of welfare recipients decreased by 12% between 1963 and 1964, welfare recipients in the combined districts represented an increased proportion (from 24.3% to 26.9%).

The combined districts include the North End Renewal Area. It is assumed that the estimated 39 families (roughly 146 persons) involved would balance those families in the west and south-west portions of the renewal area that were excluded from these figures. Even if this were not the case, the removal of these families from the combined district totals would only reduce their proportion to 22.4% of the total district caseload.

The Department of Public Welfare reports some 2,000 persons receiving provincial assistance in the form of Old Age, Blind or Disabled Persons', Mothers', Widows' and Unmarried Mothers' allowances. They estimate their normal increase in Hamilton caseload to be 6% annually. Statistics were not available for the renewal area specifically but it is assumed that the annual rate of increase would be greater in view of the municipal welfare experience, and the higher proportions of elderly (11% compared to 9% in the city) widowed (7% compared to 5% in the city) and unmarried mothers (see later sections on private agencies) residing in the area.

The primary form of Federal government assistance is by means of unemployment insurance and family allowances.

Private

In addition to the public agencies, there are many private organizations serving the renewal area in a social capacity. Some 42 were contacted in order to estimate the degree of assistance given by these voluntary agencies. The following were able to provide an estimate of their renewal area caseload as a proportion of their service area. Unless otherwise noted the service area constitutes the entire city.

(1) The Family Service Agency of Hamilton is concerned with the preservation of the family unit and the promotion of sound family relationships through a counselling service. The agency provides a budgeting service and a supportive and protective service to the elderly.

It is active in community planning, education and environment as they relate to family life. Caseload figures for this agency are shown below and relate to Hamilton and the adjoining areas.

	1961	1962	1963	1964
Total Hamilton families served	809	1,011	708	804
- in North End Renewal Area	33	18	12	9
- in Downtown-York Street Area	186	117	51	74
- as % of total families served	23	12	7	9
- service according to problem (%)	100	100	100	100
- family, individual relationships (%)	12	14	24	34
- environmental, situational (%)	88	86	76	66

The decrease in area caseload is reportedly due to a lack of expansion and diversification of service and a decrease in the agency's professional personnel. The agency is currently considering the establishment of a group home for adolescent boys and the beginning of a neighbourhood house program in the north end.

(2) The Hamilton Health Association operates the Chedoke General and Children's Hospital, the Mountain Sanatorium and Brow Infirmary for Hamilton and district. It also provides a medical casework service with related financial assistance where necessary. About 50% of all sanatorium admissions resided in the renewal area.

(3) The Visiting Homemaker's Association Inc. provides family home care where required, with feesaadjusted according to the ability to pay. The renewal area is responsible for 12% of their annual caseload. Figures indicate this agency is serving a greater proportion of families with a larger number of children; the majority of these are in the low-income bracket. The agency plans to expand its services and to provide a new centre in the area with office, training space and a lounge for older citizens.

(4) The John Howard Society of Hamilton assists in the rehabilitation of discharged male prisoners. It is estimated that up to two-thirds of the Society's clients come from the renewal and north end area where cheap single rooms are available. Nearly 81% of all clients are single, separated, widowers or divorced men. The Society plans to take over Big Brother House at 125 Wellington Street and expand its services to include group work and auxiliary programs.

(5) The Hamilton and District Association for Retarded Children operates Easthaven and Westhaven Schools, a pre-school nursery for retarded children and a Training Centre for Retarded Adults. As one-fifth of the Association's caseload is in the renewal area, they plan to expand their services with a new facility for adult training and another school located in this area.

(6) The Big Brother Association of Hamilton and District provides guidance to fatherless boys between the ages of 8 and 16 years. The renewal area is serviced by two caseworkers and 35 volunteer Big Brothers and presently accounts for 15% of the City of Hamilton's caseload, having decreased from 23% in 1960.

(7) The Children's Aid Society of Hamilton Inc. is concerned with the protection and care of children under the provisions of child welfare legislation. The renewal area is one of great concern to the Society as it represents 46% of the total family or protection caseload in Hamilton. Many of the Society's unmarried mothers live in this area.

(8) The Catholic Children's Aid Society of Hamilton provides services similar to those of the Children's Aid Society of Hamilton Inc. and the Children's Aid Society of the County of Wentworth. Estimates show the renewal area represents about 9% of all family protection cases and 3% of all unmarried mothers assisted by this Society within the city.

(9) The Council of Jewish Organizations of Hamilton serves the Jewish community through offering recreational, cultural and informal educational programs. The service includes a nursery school, Talmud Torah School,

a club for the aging and an organized physical fitness program. About 15% of the city's caseload over the past five years would be from the renewal area. As 75% of the city's Jewish population now resides in Westdale, future services to the York Street area would be minimal.

(10) The Young Women's Christian Association provides a social, recreational and educational service to women and girls and accommodation for 125 girls at their Main Street West location. Because of its central location within the renewal study area, nearly 75% of its total caseload is estimated to be from the renewal area. New and expanded facilities are to be constructed on MacNab Street between Hunter and Jackson Streets and will result in an extension of present programs.

The following agencies were contacted but were unable to supply a caseload estimate for the renewal area:

- Hamilton and District Association for the Deaf and Hard of Hearing
- Hamilton Nursery Education Association
- March of Dimes Centre for Vocation Services
- Planned Parenthood Society
- St. Elizabeth Visiting Nurses Association
- Grace Haven, Home and Hospital
- Bold Park Lodge
- Youth Anonymous
- Catholic Social Services of Hamilton
- Particular Council of St. Vincent de Paul
- Legal Aid Society
- The Salvation Army
- Social Service Department of the Hamilton Civic Hospital
- Social Service Department of St. Joseph's Hospital
- Wesley Centre Benevolent Services
- Armagh
- St. Martin's Manor
- Anglican Church Army
- Probation Services of Ontario

Some of the above agencies are satisfied with the present adequacy of their services, but many feel that the lack of qualified personnel, volunteers or finances is restricting the logical extension of their services to meet the increasing social need. Obvious gaps in basic social services that were mentioned are the relatively few resources for the lower socio-economic classes, the lack of adequate day care for children of working mothers, the lack of professional leadership in the voluntary agency field and the need for neighbourhood house programs which is inherent in the demands placed on community centres for all social requirements.

6. PROTECTIONAL

Police Department

The Department operates from 4 stations in the city, on Sherman Avenue North, Kenilworth Avenue North, Upper Wellington Street and the Central Police Station at 125 King William Street. The Probation Office and Police Garage are located at 146 and 150 Rebecca Street. The latter 3 buildings are located within the renewal area.

On January 1, 1965 the Department inaugurated a 3-area, 18-police district system with 6 districts of equal population in each area. This replaced a similar 16-police district system previously in effect since 1958. While district boundaries do not coincide with those of the renewal area, 1964 tabulations are available for that portion of the city west of Ferguson Avenue and south of the mountain (4 districts) and the area bounded by Queen and Cannon Streets, Ferguson Avenue and the mountain (1 district). These figures shown below, give an indication of the proportion of total departmental activity which occurs in the renewal area.

Characteristic	City Total		4 Districts		1 District	
	No.	%	No.	%	No.	%
Traffic Accidents (by occurrence)	9,948	100.0	3,347	33.6	1,536	15.4
Juvenile Defenders (1963)(by residence)	2,144	100.0	677	31.6	231	10.7
City Blotter Occurrences	23,937	100.0	10,925	45.6	7,080	29.6

Fire Department

The Department operates a total of 10 fire halls, 3 of which are located in the renewal area at 35-43 John Street (Central Fire Hall), 11 Napier Street (No. 5) and at Pearl and George Streets (No. 11). Fire halls on Sanford Avenue (No. 6) and at Norfolk and Main (No. 10) serve the renewal area although located outside its boundaries. The Department's offices are located at 59 King William Street and in the City Hall (Fire Prevention Bureau and Fire Chief's Office).

The Department operates on a district system with fires in the general area of Hunter, Wellington, Barton and Bay Streets or in large buildings outside this area (factories, high-rise apartments, institutional buildings, etc.) attended by at least 3 pumpers, an elevated lower platform, an emergency unit and a senior officer. Alarms in other areas generally receive a 2-pumper response, although all the equipment of the Department is available in the event of any serious fire.

In 1964, the Department answered a total of 3,794 alarms in Hamilton, 1,179 of which involved fires. Assistance, emergency and inhalator calls accounted for another 1,969 alarms while accidental or false alarms represented the remaining 706. Over the past 15 years, there have been 3,446 fires in the renewal area, an average of 230 per year with emergency unit calls amounting to 1,115 or 74 per year. Based on these average figures, it appears that the renewal area is responsible for close to 20% of Hamilton's fires annually although only 35,000 persons or 12% of the city's population resides within this area.

III DATA ON SUBSTANDARD CONDITIONS

1. URBAN RENEWAL STUDY 1958

In November 1957 an agreement was entered into between the City of Hamilton and Central Mortgage and Housing Corporation to carry out an urban renewal study for the city. As a part of this study an extensive survey was made of the internal and external condition of residential structures and the result was related to a recommended priority of renewal action.

The final grade of structural conditions in this survey was determined through the assignment of both 'penalty points' and 'deficiency points' as a means of establishing comparative physical deterioration and the absence of basic health and safety facilities. The maximum penalty assigned to exterior conditions was 129 penalty points and 3 deficiency points, interior conditions 75 and 2 and basic health and safety standards 208 and 7. Thus of the maximum possible total of 412 penalty points and 12 deficiency points roughly half were assigned to structural condition and the remainder to living conditions.

Each structure was accordingly classified by grade under one of three action groups - conservation, rehabilitation and presumptive clearance. Any building having penalty points was included under one of the three rehabilitation categories while any having deficiency points classed under presumptive clearance. Deficiency points were assigned to such structural inadequacies as cracked or crumbling foundations or walls, sagging roofs, rotten floors and damp basements. Health and safety matters receiving deficiency points were outside toilet or bath facilities and a lack of electricity, water, heating system or adequate egress.

Because of the comprehensive nature of the survey an attempt was made to relate the 1958 findings to present conditions. Possibly due to the dual standard of determining blight and to the changes in

condition over the intervening period, it was discovered that there was no effective means (short of a new survey) to update the study. It was only in the most general sense that the old and new surveys could be in any way compared.

2. CONDITION OF BUILDINGS, 1965

The field survey undertaken for the renewal area was premised on external appearance and structural condition and, of course, included all buildings regardless of use. The classification (which is illustrated on Map 16) is simple in that individual buildings are defined as either good, fair or poor. The structures classed as good or poor have been selected as being without question of the two extremes. The 'fair' category is accordingly very broad and may range from those needing only a coat of paint to those requiring extensive rehabilitation if not outright clearance. The percentages of buildings in each of these categories is estimated to be 11% poor, 74% fair and 15% good.

It has been possible through this approach to identify primary areas of renewal need with a reasonable degree of accuracy but the condition map must be interpreted within the limitations of the survey. Further surveys of structural and social conditions of a comprehensive nature are required in the formulation of specific urban renewal schemes.

3. AREAS OF BLIGHT

From examination of the map showing condition of structure it is possible to draw certain conclusions as to the location and degree of blight within the urban renewal area. In general there are few concentrated areas of substantial blight. The area as a whole (apart from a few blocks in the core) is suffering from a remarkably uniform degree of physical debility and the majority of it will ultimately require some form of public renewal action. Some of the worst sections of the study area are included in the lands for which schemes are proposed in the following sections of this report.

B A R T O N
F R E E W A Y
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 16 - CONDITION OF BUILDING
GOOD
FAIR
POOR
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SCALE - 1" = 500'
SEPT., 1965

IV A PLAN FOR THE AREA

1. OFFICIAL PLAN

The existing official plan for the Hamilton Planning Area has been described in Part I of this report and is reproduced as Map 3 insofar as it relates to the study area. The plan, approved on June 12, 1951, has no text and the categories of land use applying to the area are three in number: residential, commercial and industrial. Because of the age of the document, the lack of detail and the absence of any substantiating text, the effective interpretation or utilization of the plan for the purposes of urban renewal is virtually impossible.

It has accordingly been the intention of this report to provide the physical, social and economic studies necessary for the proper evaluation of urban renewal schemes within the study area. The background studies are reflected in the generalized development concepts which are set out in this section; the resultant plan may be considered to be an "official plan" for the study area in the absence of other adequate planning guides.

For the immediate purposes of the urban renewal program in the City of Hamilton it is intended that the concept plan form the basis for the requisite amendment to the existing official plan, to prevail until such time as a comprehensive official plan can be prepared for the city as a whole. Consideration can be given at the same time to the amendment of Zoning By-law No. 6593 (see page 7 and Map 4) in order to implement the policies established in the official plan amendment and with particular emphasis on those areas adjacent to proposed urban renewal schemes.

2. THE CONCEPT PLAN

The information contained in the preceding sections of this report (particularly that relating to land use and building condition) and the comprehensive analysis and forecast of land use needs for the central business district in the appendix has been employed in the preparation of the conceptual

plan (Map 17). The plan shows, in a generalized manner, the kind of land use organization which is considered to be both desirable and feasible.

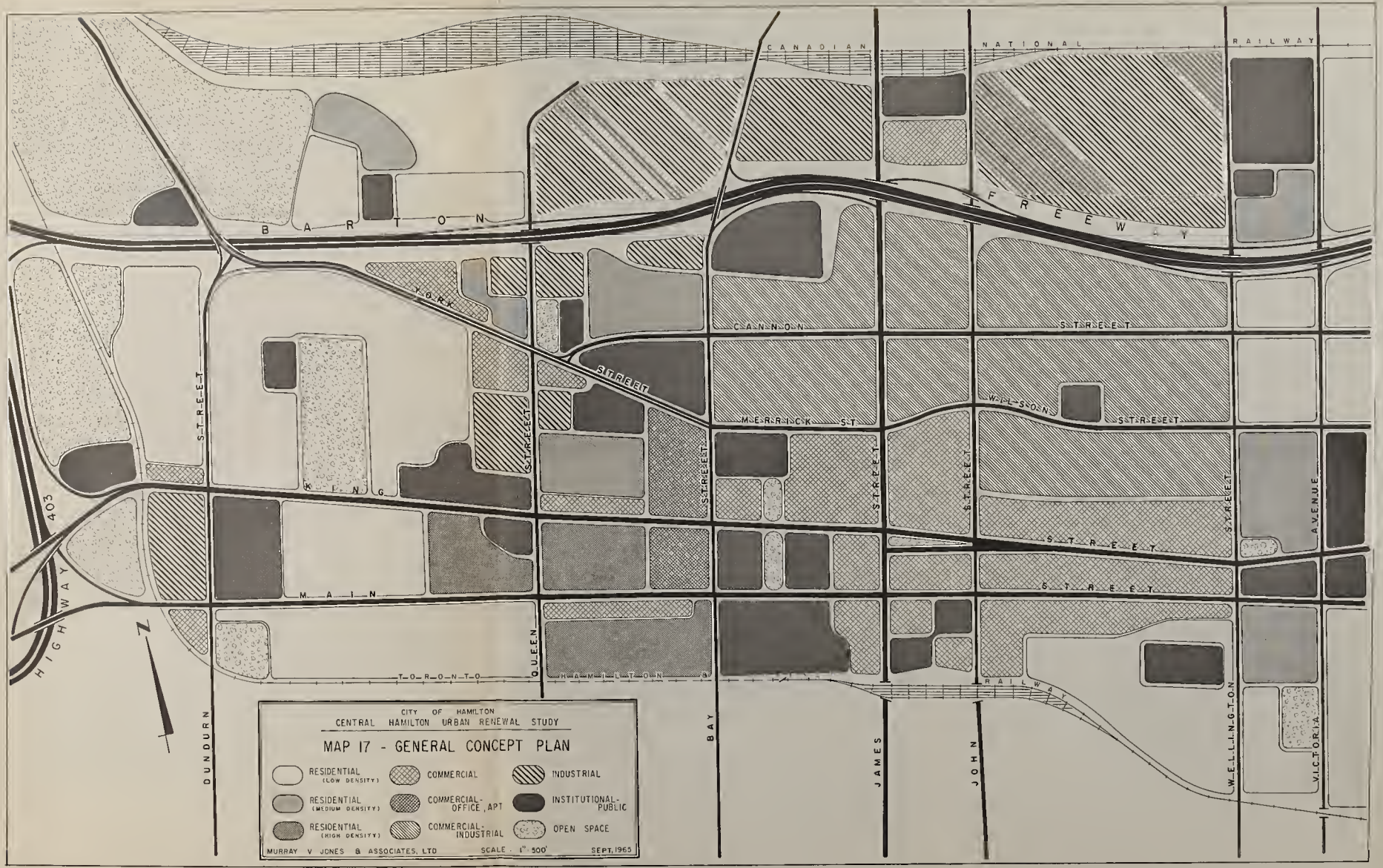
The plan reflects certain influences and conclusions which have become apparent from research within the study area.

(i) There are few areas of well-defined land use. The majority of the area, especially that peripheral to the central business district, consists of an intermixture of residential, commercial, industrial and institutional uses of varying age and condition. This inhibits the redevelopment process, for a logical use area will frequently contain a number of other incompatible uses in both good and poor structural condition. The selective employment of public renewal measures may provide a partial cure but in the long run only the application of adequate planning and development controls will ensure that the renewal effort is fully exploited.

(ii) The degree of blight within the study area is relatively high, but it is dispersed throughout the 1,150 acres as opposed to being concentrated in limited portions thereof. In residential terms this implies a renewal solution of rehabilitation and selective clearance; commercial blocks (apart from a limited area of the core) are more often structurally and functionally obsolete and offer little scope for rehabilitation on an economic basis.

(iii) There is evidence of a substantial lack of adequate public services, including schools, sewers, roads, local off-street parking, and recreational resources. Although the substandard nature (or absence) of these facilities will further incipient or established blight, their correction through the renewal medium can equally well have an upgrading effect.

The demand for new floor space for various uses has in large part been established in the preceding sections and the appendix and has been reflected in the disposition of use areas in the concept plan. Because of the close relationship of the "central business district" to the overall study area in terms


CANADIAN
NATIONAL
RAILWAY
FREEWAY
BARTON
YORK
STREET
CANNON
MERRICK ST
WILSON
KING
MAIN
QUEEN
403
HIGHWAY
DUNDURN
TORONTO
HAMILTON
BAY
JAMES
JOHN
WELLINGTON
VICTORIA
AVENUE
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 17 - GENERAL CONCEPT PLAN
RESIDENTIAL (LOW DENSITY)
RESIDENTIAL (MEDIUM DENSITY)
RESIDENTIAL (HIGH DENSITY)
COMMERCIAL
COMMERCIAL-OFFICE, APT
COMMERCIAL-INDUSTRIAL
INDUSTRIAL
INSTITUTIONAL-PUBLIC
OPEN SPACE
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SCALE - 1" 500'
SEPT. 1965

of commercial and industrial enterprises, it has been possible to come to some general conclusions about the area needs for these uses. One primary conclusion is that there will be no significant expansion of the central business district. The projected increase in office, retail and service commercial uses can be accommodated by increasing the density of development on existing sites. It has also been recognized that the redevelopment of the central area, whether by public renewal or private means, will gradually replace the wholesale and warehouse uses with other types of use.

There has unfortunately been no recent examination of the market for private rental housing within the city as a whole. Because of the size of the municipality and the ease of access from areas contiguous to the study area (notably the mountain) it has been difficult to define the market without such an overall study. In general terms it is apparent that no significant demand exists for higher rent apartment suites at this time. There is no doubt that the renewal of the Civic Square and York Street area will produce a more attractive environment for private investment, but some incentive in terms of land assembly and cost may be required.

The remaining major influence which has not been mentioned is the east-west expressway or Barton Freeway. The Hamilton Area Transportation Plan has recommended the general design and location of this facility in the manner illustrated on Map 16. It has been necessary to assume the future existence of the Freeway in the preparation of both study and schemes, and of all known land use demands this will have the most profound effect.

In addition to the above, it is expected that there will be a demand for a number of uses including an education centre, auditorium and convention centre, library, art gallery, planetarium, central fire station, secondary school, two junior vocational schools, school for retarded children, masonic temple and a number of commercial enterprises. These, together with indicated need for site extension to public schools, have been incorporated into the concept plan; the majority of them will have further definition within

the urban renewal scheme areas.

All of the above elements are reflected in the tentative definition of future land use distribution as illustrated on the plan included in this report. With the knowledge that any significant change to areas must be accomplished through public action (with the possible exception of part of the C.B.D.), the drastic reorganization of use has been avoided wherever possible. For example, the proposals illustrated for the lands west of Queen Street are a recognition of the prevailing use pattern and its consolidation through appropriate urban renewal measures to a reasonable residential environment. The majority of deteriorated structures are in residential use and are perhaps most notable in the area between King and Main Streets.

Apart from the C.B.D., the area with the greatest potential for change is south of York Street between Queen and Bay. It is proposed here to encourage, as time and market permit, the development of private rental housing south of King Street and the fringe-of-core intermixed functions of commercial, office and apartment to the west of Bay Street.

It is also proposed to close and relocate York Street east of Bay as part of the scheme for the central area. The effective extension of York Street eastbound on Merrick and Gore to Wilson Street would provide an arterial route peripheral to the core and remove congestion on Main. The Cannon Street extension to York Street will similarly relieve central area traffic. Bay Street should become a two-way street to relieve James of the additional traffic beyond that brought on by the expressway.

The future of the lands north of the proposed extension of York Street is without doubt the most difficult to determine. The land use pattern is badly confused and the proposed expressway compounds the problem. Despite the existence of a substantial number of houses north of the expressway, the remaining pockets are of inadequate size to maintain an adequate residential environment and it is considered necessary to primarily designate the area as industrial (an assumption in common with that of the Hamilton Transportation Study).

The remaining uses in this section (apart from an institutional grouping of church, separate school and separate school administration building) can only be described as transitional from C.B.D. to industrial. Such marginal uses are characteristic of most urban centres; their continued existence and possible growth must be recognized and the primary goal the gradual removal of the residential function.

The areas to the east and south are again reflections of established use. Between the residential area south of Main and the marginal commercial-industrial lands north of King William is the eastern extension of the C.B.D. This area is relatively well developed in function and, with the exception of certain structures north of King Street, has no marked evidence of blight.

Apart from these general conclusions on the appropriate form and relation of land uses, it has also been possible to establish more firmly the land use pattern in selected sections of the overall renewal area. These include the Civic Square and York Street areas which will be shortly forthcoming as schemes and which have had the benefit of certain detailed design consideration.

3. URBAN RENEWAL SCHEME AREAS

Two sections of the overall area have already been defined for preparation of urban renewal schemes (see Map 18). These areas were selected because they are most urgently in need of renewal, and because they possess the greatest potential for both public and private redevelopment action.

Civic Square - bounded generally by Bay Street on the west, Main Street on the south, James Street to the east and Merrick Street on the north.

York Street - bounded by Strathcona Avenue and Dundurn Park on the west, Florence, Ray, Peter, Queen and Napier Streets on the south, Bay Street (including the eastern fronting properties) to the east and the C.N.R. to the north.

Two other areas possessing a degree of urgency in terms of renewal action are also illustrated in Map 18. These may be described as (1) the lands within the study area south of King Street and west of Locke Street, and (2) the area north of King Street to the Barton Freeway between Mary Street and Wellington Street (bisected by the Ferguson Avenue railway and yard).

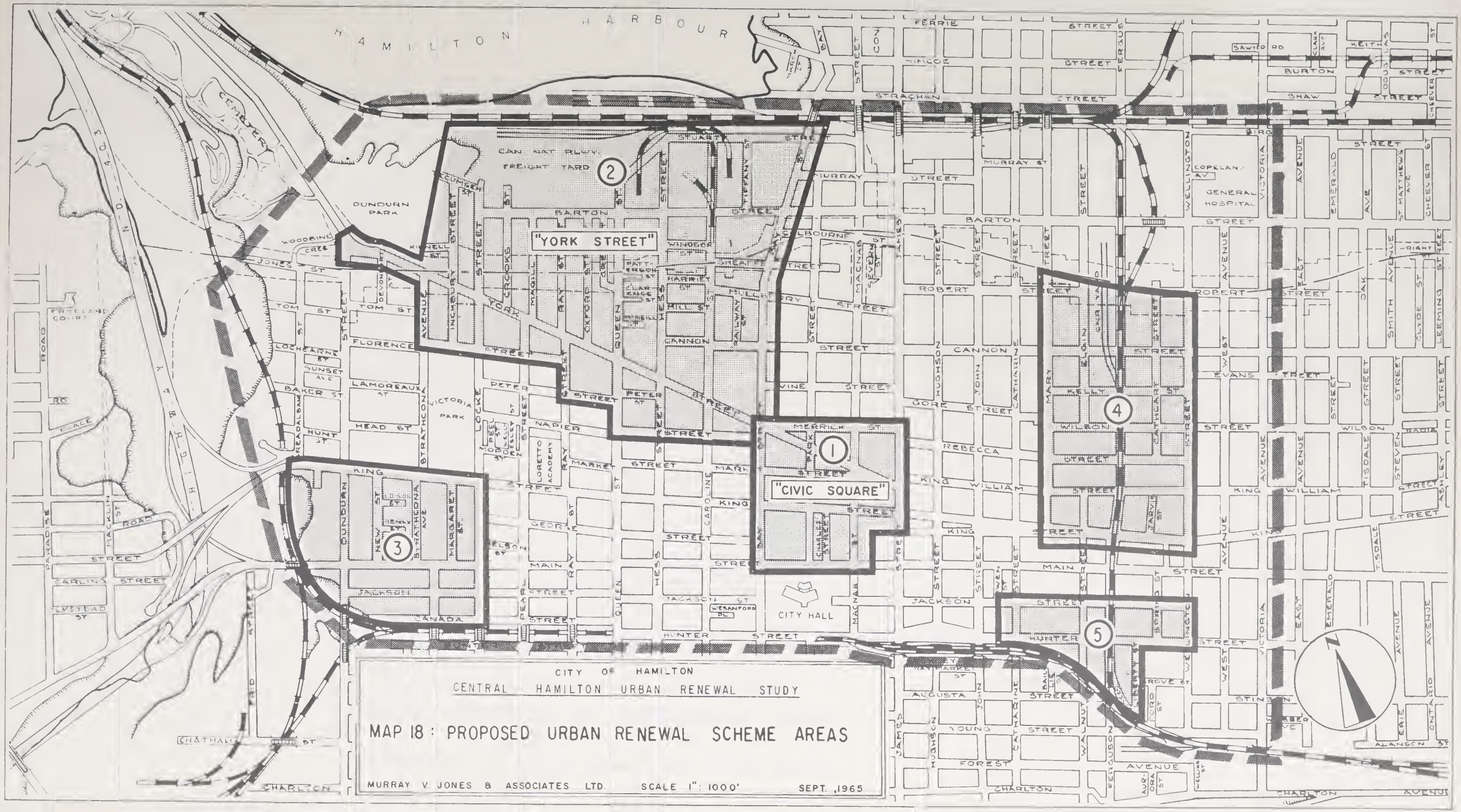
A third area which might be contemplated for renewal measures consists of the residential pocket between Main Street and the T.H. & B. railway in the south-east corner of the study area. A use proposed for a portion of these lands is a junior vocational school for girls required by the Hamilton Board of Education, a facility which might tend to stabilize the residential component and remove some of the poorest structures from its midst.

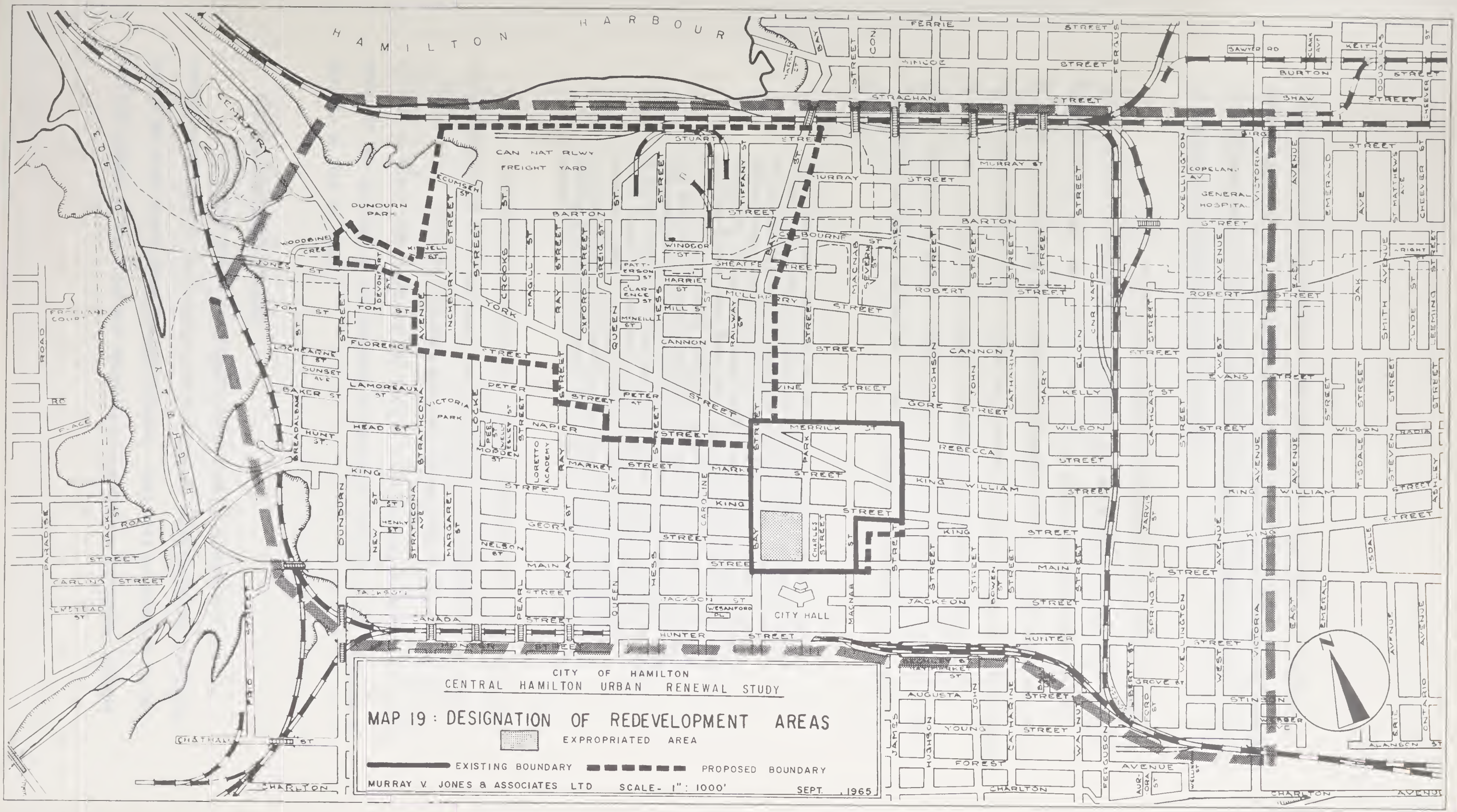
As indicated earlier the majority of the study area is in need of renewal action and it would accordingly be possible to define additional scheme areas. Because of the time required, however, to prepare and implement urban renewal schemes for the four or five areas already outlined, it is deemed advisable to consider this problem at the time when the third and fourth schemes are being produced. By so doing it will be possible to define further areas having regard to the partial implementation and resulting effects of the York Street and Civic Square schemes and to have firmer knowledge of the final location and timing of construction of the Barton Freeway.

It should be noted at this point that the material which has been collected on the physical, social and economic characteristics of the study area will be of principal use in the preparation of future urban renewal schemes. The information will, of course, be reflected in the policies and plans recommended through the consultant for the Civic Square and York Street schemes. It is strongly urged that full use be made of the research findings of this study in all future schemes.

4. REDEVELOPMENT AREAS

From the agreement through which this study has been undertaken and from the preceding evaluation of the study area, it is apparent that the first priority of urban renewal action has been assigned to the York Street area


HAMILTON HARBOUR
CEMETERY
CAN. NAT. RWYS. FREIGHT YARD
DUNDURN PARK
"YORK STREET"
"CIVIC SQUARE"
CITY HALL
VICTORIA PARK
GENERAL HOSPITAL
1
2
3
4
5
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 18 : PROPOSED URBAN RENEWAL SCHEME AREAS
MURRAY V. JONES & ASSOCIATES LTD. SCALE 1" : 1000' SEPT. ,1965


HAMILTON HARBOUR
CEMETERY
CAN NAT RLWY FREIGHT YARD
DUNDURN PARK
VICTORIA PARK
CITY HALL
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 19 : DESIGNATION OF REDEVELOPMENT AREAS
EXPROPRIATED AREA
EXISTING BOUNDARY
PROPOSED BOUNDARY
MURRAY V. JONES & ASSOCIATES LTD
SCALE- 1": 1000'
SEPT. ,1965

and to the associated renewal of the Civic Square (see Map 19). The two schemes combined cover an extensive portion of the study area and the approval and implementation of them will require a considerable amount of time as well as financial and administrative resources.

For these reasons it is deemed appropriate for the City of Hamilton to now apply for the necessary approval from the Province of Ontario for the designation of only the two immediate scheme areas as redevelopment areas. In order to facilitate the location and construction of a new education centre for the municipality, this action has already in part been taken. The majority of the Civic Square area has been the subject of a by-law passed by the City of Hamilton on June 29, 1965, wherein certain lands were designated as a redevelopment area. By-law No. 10781 included the following enactment of council:

> "That the area bounded on the north by the northern limit of Merrick Street, on the west by the western limit of Bay Street North, on the south by the southern limit of Main Street West from the west side of Bay Street South to the east side of MacNab Street South and by the southern limit of King Street West from the eastern limit of MacNab Street North to the eastern limit of James Street North, and on the east by the eastern limit of MacNab Street North from the southern limit of Main Street West to the southern limit of King Street West and by the eastern limit of James Street north from the southern limit of King Street West to the northern limit of Merrick Street, is hereby designated as a redevelopment area within the meaning of subsection 2 of section 20 of The Planning Act, R.S.O., 1960, chapter 298, as amended."

A further by-law (By-law No. 10782) provided for the expropriation of a block within the above area for the purpose of accommodating the education centre. The lands involved are also illustrated on Map 19 and are bounded by King, Park, Main and Bay Streets. The passing of By-law No. 10781 received the approval of the Minister of Municipal Affairs of the Province of Ontario on June 22, 1965.

5. PUBLIC INFORMATION PROGRAM

A complete public information program will be developed for the overall study area in conjunction with the program established for the Civic Square and York Street Urban Renewal Schemes. This will be premised on experience gained in the North End renewal project where a successful program

has included public meetings, informational brochures, pamphlets and news letters, a citizens' advisory committee of area residents, site office, maintenance of personal contacts through formal and informal interviews, and the arrangement of a continuing series of press, radio and television progress reports.

Portions of this program including public meetings and news and television reports have already been initiated within the study area. In addition representatives of the Hamilton Downtown Association were appointed to the Urban Renewal Committee by City Council to aid in the preparation of the proposals for improving their area.

The Urban Renewal Committee is firmly committed to a policy of public information and education on both general and specific renewal matters and has demonstrated the efficacy of this policy through the successful and amicable implementation of the City's North End project to date.

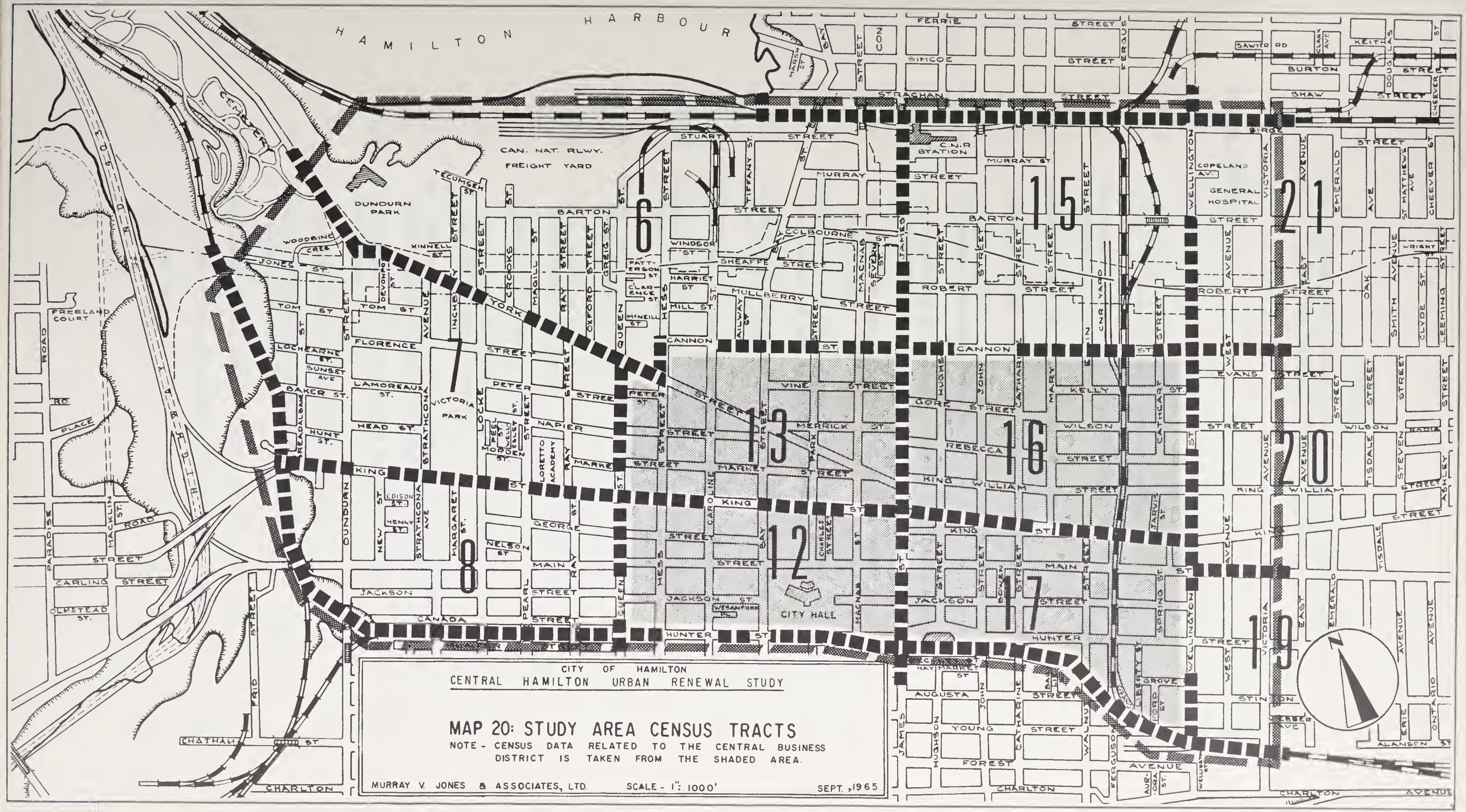
6. A TIMETABLE FOR URBAN RENEWAL

The timing for implementation of subsequent urban renewal schemes is generally related to the priorities outlined in Section 4 and specifically related within the scheme areas to the demand reflected in public and private re-use proposals and to the resources of the city in undertaking the work involved.

The first steps have already been taken in the Civic Square scheme with the designation of the basic area and the expropriation of the site for the education centre. Preparation of the Civic Square urban renewal scheme will be shortly followed by the York Street scheme with the latter, however, being a more long-term proposition in timing of complete implementation. Commencement of clearance in both scheme areas should be preceded by the maximum consideration of the relocation problem and its possible solution.

A token priority for other schemes has been indicated in Section 4 through the definition and numbering of three additional scheme areas (see Map 18). This must be regarded as flexible in the event that the circumstances

which have led to the current definition should change over time. The urban renewal program in Hamilton must at all times reflect an awareness of changing need within the study area.


HAMILTON HARBOUR
CITY OF HAMILTON
CENTRAL HAMILTON URBAN RENEWAL STUDY
MAP 20: STUDY AREA CENSUS TRACTS
NOTE - CENSUS DATA RELATED TO THE CENTRAL BUSINESS DISTRICT IS TAKEN FROM THE SHADED AREA.
MURRAY V. JONES & ASSOCIATES, LTD.
SCALE - 1": 1000'
SEPT., 1965
CAN. NAT. RLWY. FREIGHT YARD
C.N.R STATION
CITY HALL
DUNDURN PARK
VICTORIA PARK
GENERAL HOSPITAL
CNR YARD
QUEEN HESS
KING STREET
MAIN STREET
JACKSON STREET
BARTON STREET
CANNON STREET
HUNTER STREET
MURRAY STREET
ROBERT STREET
WILSON STREET
EVANS STREET
MACNAB
CHARLES STREET
CAROLINE
JOHN
HUGHES
CATHARINE
MARY
KELLY
WILLIAM
JARVIS
BAY
MACKLIN ROAD
PARADISE ROAD
CARLING STREET
OLMSTEAD ST.
FREELAND COURT
CHATHAM ST
CHARLTON AVENUE
FOREST AVENUE
YOUNG STREET
AUGUSTA
GROVE
STINSON
ALANSON ST
FERRIE STREET
SIMCOE STREET
STRACHAN STREET
BURTON STREET
SHAW STREET
CHEEVER ST
DOUGLAS
KEITH
SAWYER RD
CLARK AVE
ST MATTHEWS AVE
COPELAND AV.
WELLINGTON
VICTORIA
EMERALD
SMITH AVENUE
OAK
CLYDE ST.
LEEMING ST
WRIGHT ST
EAST AVENUE
WEST AVENUE
TISDALE
STEVEN
ASHLEY
ONTARIO
ERIE
MACKLIN ST.
DUNDURN
STRATHCONA AVE
MARGARET ST.
LOCKE
PETER STREET
NAPIER
RAY
MARKET
GEORGE
NELSON ST
PEARL STREET
CANADA
JACKSON
MAIN
KING
CANNON
HUNTER
MILL ST.
MULBERRY
SHEAFFE
HARRIET ST
WINDSOR ST
COLBOURNE
MACNAB
JAMES
TIFFANY ST
STUART
TECUMSEH ST
XINNELL ST
WOODBINE CRES
JONES ST
TOM ST
DEVONPORT ST
FLORENCE
LOCHEARN ST
SUNSET AVE
BAKER ST
HUNT ST
HEAD ST
LAMOREAUX ST
EDISON ST
HENRY ST
PEEL ST
QUEEN ST
DUKE ST
DERBY ST
LORETTO ACADEMY
INCHBURY
CROOKS
MAGILL ST
GREIG ST
OXFORD STREET
CLARENCE ST
PATTERSON ST
MCNEIL ST
HESS
QUEEN
ALWAY
VINE STREET
MERRICK ST
PARK
REBECCA
GORE ST
CATHEART ST
WEGANFORD PL
BOWEN STREET
SPRING ST
FORD ST
LIBERTY ST
HAY MARKET ST
AURORA ST
WELLINGTON
FERGUSON
JOHNSON
JAMES
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APPENDIX

Economic Background Studies to Forecast Land-Use Needs in the Central Business Districts

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INTRODUCTION

The forecast of land-use needs, almost without exception, involves considerable difficulties. The application of statistical analysis for this purpose is still relatively new, consequently the choice of the best method is seldom a foregone conclusion. It is easy to understand, therefore, that data is seldom gathered on a comprehensive basis having, like the census, any method of land use forecast in mind. All these circumstances offer a considerable challenge to the analyst who can seldom avoid problems posed by incompatible data gathered at different times for purposes often totally unrelated to land use.

In the case of Hamilton the information available consisted of publications of the 1961 census, assessment records and other data gathered for the Hamilton Area Transportation Study (H.A.T.S.). Unfortunately some pertinent publications of the 1961 census appeared quite late to be really useful for this study. This explains why two different methods are used in forecasting two different aspects of what appears to be the same type of land use.

The area covered in this survey is referred to as the Central Business District (C.B.D.). In fact the lands included extend substantially beyond the limits of what are nominally the downtown or central area functions but by so doing provide for inclusion of some of the fringe functions relevant to the study and permit the use of D.B.S. data. The area involved includes four census tracts (12, 13, 16, and 17) and is illustrated on Map 20.

The basic input data for the forecast, discussed item by item below, were as follows:

I Population data of the 1961 census and of the Assessment Department;

II Population forecast of the Planning Department of the City;

III Labour force forecast of Metropolitan Hamilton based on D.B.S. data;

IV Retail sales forecast based also on D.B.S. data.

The first two of these will be discussed in the following first chapter, the second two in the second and third chapters, followed by the floor space forecast. Technical and methodological notes will complete the study.

I - POPULATION

The Planning Department of the City of Hamilton prepared in 1964 a population forecast for the Metropolitan Area. The document, entitled "Urban Growth and Economic Health", deals with population and labour force and is intended to be a part of the official plan. This chapter deals only with the conclusions as related to population.

There are many methods of population forecasting; however, to keep calculations within manageable volume some factors have to be omitted or have to be summarily evaluated. In metropolitan areas this applies particularly to immigration which may account for 30% or more of their population growth. All immigration is considered in this context, not just from abroad, but from other areas of the country or province.

Table 1

Population of the Metropolitan Area from 1921 to 1961[1]

	1921	1931	1941	1951	1956	1961
Metropolitan Hamilton	156,276	193,065	210,536	280,293	338,294	395,189
Burlington Suburban Area	6,471	7,653	8,759	22,602	35,705	53,186
Burlington	2,709	3,046	3,815	18,013	30,524	47,008
Other[2]	3,762	4,607	4,944	3,689	5,181	6,178
Wentworth County[2]	149,805	185,412	201,777	257,691	302,589	342,003
City of Hamilton	114,151	155,547	166,337	224,951	250,914	273,991
Other	35,654	29,865	35,440	40,118	51,675	68,012

[1] The Metropolitan Area consists of Wentworth County and the Town of Burlington

[2] The Township of East Flamborough is included in the Burlington area and so is the Village of Waterdown.

Table 1 shows the population of the metropolitan area in retrospect. In interpreting the figures, it should be borne in mind that no correction was made for annexations, therefore Burlington and Hamilton do not refer to the same area throughout the table. The summary lines for the Metropolitan Area and the sub-summary lines for the Burlington Suburban Area and Wentworth County represent the same area.

There are good reasons to believe that more people migrated into the city between 1950 and 1960 than indicated by the 0.52 per 1,000 net immigration rate of this period. It is evident that the suburbs received most of the net population gain resulting from immigration. The city probably received a significant part of the arrivals and the suburban growth represents in no small part population lost by the city. The net immigration into the Metropolitan Area between 1951 and 1961 was 51,617, almost as much as the natural growth; in other words about one-half of the increase was by immigration. In the city proper during the same period there was a net immigration of only 1,457 persons.

Between 1956 and 1961 - a period for which figures are available - the City lost 18,343 people to the suburbs but there was also a smaller reverse migration (of 4,056) reducing the net loss to 14,287. This loss of population by the City was balanced by arrivals from outside the Metropolitan Area amounting to 14,780. It is an interesting fact that among migrants from within Canada, only 3.5% came to the City and 96.5% to the suburbs, while the City got 79.7% of the arrivals from abroad wtth 20.3% to the suburbs. Almost all arrivals to the City from outside the Metropolitan Area were accordingly from abroad.

It is obvious that economic conditions affect the natural growth of population; what has to be stressed is that these conditions have a considerably more amplified effect on migration. The underlying assumption of the forecast made by the Planning Department is that the employment opportunities offered in the Metropolitan Area will maintain their relative growth rate or, in other words, that Metropolitan Hamilton will maintain its relative attraction as a population centre for urban immigrants. While this

assumption seems quite reasonable migration is the most elusive element in population forecasting (being determined by a multitude of individual decisions) and the future is altogether likely to disprove the current predictions.

The method used by the Planning Department is conceptually simple. The metropolitan population was expressed as the percentage of (a) all metropolitan populations, (b) the Ontario population, (c) the population of Canada. It has been found that the first ratio was remarkably stable during the past and it is assumed to remain valid in the future. The other two exhibit a regular growth which is also expected to remain more or less constant. This expectation of regular growth is justified by the assumption mentioned before, that is, the relative attraction of Hamilton on the population migrating to urban areas. As far as the population forecast for Canada is concerned, the forecast of the Gordon Commission was used. It is worth mentioning that a more recent forecast for the use of the Economic Council of Canada predicts a population for 1970 which exceeds the prediction of the Gordon Commission by 2.8%.

Table 2

Population by Towns and Townships
in the Metropolitan Area 1951 to 1961
and Projections to 1985

	1951	1956	1961	1971	1981	1985
Metropolitan Hamilton	280,293	338,294	395,189	500,000	666,000	740,000
City of Hamilton	224,951	250,914	273,991	319,600	394,300	428,100
Burlington Suburban Area	22,602	35,705	53,186	85,000	128,200	149,500
Burlington	18,913	30,524	47,008	77,400	119,200	140,000
Waterdown	1,347	1,754	1,844	2,050	2,300	2,500
East Flamborough	2,342	3,427	4,334	5,550	6,700	7,000
Wentworth County Suburban Area[1]	32,740	51,675	68,012	95,400	143,500	162,400
Twp. of Ancaster	4,586	9,157	13,338	17,900	22,600	23,800
Beverly	4,138	4,559	5,023	5,600	6,000	6,200
Binbrook	1,384	1,865	2,557	3,400	6,800	9,400
Glenford	1,871	3,025	4,714	6,100	9,000	11,000
Saltfleet	6,973	12,383	16,424	29,200	58,300	69,500
West Flamborough	3,925	5,294	7,001	8,600	10,000	10,600
Town of Dundas	7,941	10,886	12,912	16,400	20,200	21,200
Stoney Creek	1,922	4,506	6,043	8,200	10,600	10,700
Below the Mountain	-	200,037	198,689	211,100	230,100	233,400
Aoove the Mountain	-	50,877	75,302	108,500	164,200	194,700

[1] Excepting Waterdown, East Flamborough and the City of Hamilton

Source: 1961 Census

Table 2 summarizes the forecast and needs little explanation. The land use and population density employed by the Planning Department in estimating population distribution were premised on current zoning standards and would have to be revised if zoning standards were substantially altered.

The study area proper had a population of 30,728 in 1961, a slight decrease from the 32,928 at the time of the 1956 census. However, the Planning Department regarded the decrease as transitory because varying increases of population are forecast for 1985 in all Census Tracts, as shown in Table 3.

Table 3

Population of the Study Area by Census Tract and Projections for 1985

Census Tract	1956	1961	Forecast 1985
6	6,290	6,264	6,848
7	4,380	4,426	4,684
8	3,678	3,416	3,669
12	2,771	1,997	2,183
13	2,900	2,341	2,559
15	3,710	3,531	4,249
16	2,903	2,616	3,148
17	2,062	2,047	2,238
Remainder of study area (part of 19, 20, 21)	4,234	4,090	4,922
Total	32,928	30,728	34,500

The area on the other hand is one of high mobility with those who changed their residences between 1956 and 1961 constituting 55% of the population. The information relevant to migration is summarized in Table 4 covering the intercensal period. Though the overwhelming majority of those who moved came from within the city, the area also served as an immigrant reception area for immigrants from abroad. The migration into and within the study area was proportionately 60% higher than the metropolitan average.

If the trend of migration during the last intercensal period were to continue it would mean that by 1985, 97% of the 1961 population will have moved and only 3% will be original residents. Such high mobility calls for caution in forecasting. It should also be mentioned that the proposed Barton Freeway will dislocate an estimated 2,700 people, a figure which was not

included in the Planning Department's forecast but which will have an influence on the result. The removal of structures through urban renewal and possible increase in residential densities through public and private housing will affect the forecast as well.

Table 4

Migration into the Study Area
1956-1961

Population 5 years and over - 1961	26,215	100.0%
Non movers	12,007	45.8%
Movers from the city[1]	10,148	38.7%
the suburbs	321	1.2%
Ontario	900	3.4%
the rest of Canada	539	2.1%
abroad	2,222	8.5%
Residence unknown	78	0.3%

[1] Includes those who moved within the study area.

For the purposes of this analysis it seems reasonable to take the forecast of the City Planning Department as is and to assume that the variable factors will compensate for each other.

II - LABOUR FORCE

Summary

In the past census decade, from 1951 to 1961, the labour force of the Metropolitan Area increased by 13.3%. The size of the labour force is influenced not only by the size of the population but also by the participation rate. It is evident that the increase of the labour force is lower than might be expected in comparison to the 41% increase of the population over the same period. The difference can no doubt be explained by the fact that 1951 was a year of buoyant economic activity and employment, whereas 1961 was one of relative recession. This no doubt influenced the participation rate in the labour force. For this reason some industries show an abnormally low rate of expansion during the decade and it was necessary in the majority of cases to correct this discrepancy in order to arrive at a correct trend of employment in the ten-year period. The results of the present forecast are slightly lower than the forecast prepared by the Planning Department and are summarized in Table 5.

Table 5

Projected Labour Force -
Metropolitan Hamilton

	1951	1961	Forecast 1975	Forecast 1985
Metropolitan Area				
Population	280,293	395,189	567,000	740,000
Population 15 years and over	-	269,624	393,500	508,400
Labour force	113,859	151,637	208,600	264,800

The labour force will not only change in size, but there will be a significant shift in the relative importance of various industries in which the labour force is employed. These are discussed below.

General

The forecast was made according to assumptions outlined below as to the size and distribution of the labour force. The population forecast and the age distribution for Metropolitan Hamilton, as projected by the Planning Department, are fundamental to the forecast. To establish participation rates by age groups the recently published Staff Study No. 1 prepared for the Economic Council of Canada was used as a reference.

To establish the trend of the various industries, consideration had to be given, as mentioned before, to the fact that 1951 was a "high" employment year while 1961 was "low". To correct for this discrepancy, the D.B.S. Metropolitan Hamilton industrial composite index from 1949 to 1963 was used. Indexes of the individual industries, which would have been preferable for this purpose, are not available for the number of years required.

Size of the Labour Force

Considering the metropolitan population 15 years of age and over, the participation rates calculated and projected are as follows taken as a composite for both sexes:

1961	1975	1985
56.2%	53.0%	52.9%

The participation rates by sex and age group vary widely. The projected trends decline sharply for men under 19 and slightly for men in the 20-24 age group. They also decline for men over 65 years of age. The participation rates of women are increasing in all age groups. The higher the age group the "steeper" the increase in the rate, up to the 45-54 age group, where the rate increases the fastest, while in the 55-64 group the increase is somewhat more moderate. A combination of these factors resulted in the projected participation rate for 1975 and 1985. Considering the number of years involved the latter figure must be viewed with caution.

Trends in the Distribution of the Labour Force

Table 6

Distribution of the Labour Force
in Metropolitan Hamilton
by Major Industrial Groups

	Percentage of Labour Force			
			Projected	
Metropolitan Hamilton	1951	1961	1975	1985
Labour force	100.0	100.0	100.0	100.0
Manufacturing	52.0	40.3	32.2	29.1
Construction	6.1	7.0	6.7	6.6
Transportation, storage, communication	6.3	6.2	6.2	6.2
Wholesale trade	4.3	4.2	4.5	4.6
Retail trade	10.2	11.6	14.0	14.9
Finance, insurance, real estate	2.4	3.3	4.8	5.2
Service industries	13.6	19.0	25.8	28.1
Other	5.3	8.4	5.8	5.3

Table 6 illustrates the past and projected trends of the distribution of the labour force. The principal changes reflected in the table are the significant increase in retail, finance and service employment and the decrease in manufacturing. The latter figure is, of course, related to the increasing degree of automation, especially in heavy industry. The remainder of the groups will remain relatively stable, increasing in number but not in proportion of the total labour force.

(a) Manufacturing

Table 7

Distribution of the Labour Force
in the Manufacturing Industries

	1951	1961	1975	1985
Metropolitan labour force	100.0	100.0	100.0	100.0
All manufacturing	51.9	40.3	32.2	29.1
Food and beverages	3.4	3.6	4.0	4.2
Tobacco products	0.4	0.3	0.3	0.3
Rubber industries	1.3	1.0	0.8	0.7
Leather industries	-	0.3	0.2	0.1
Textile industries	2.5	1.2	0.4	0.2
Knitting mills	2.6	0.3	0.2	-
Clothing industries	1.0	0.6	0.4	0.3
Wood industries	0.5	0.4	0.3	0.3
Furniture and fixtures	0.3	0.3	0.2	0.2
Paper and allied	1.2	1.1	0.9	0.9
Printing and publishing	1.1	1.3	1.5	1.5
Metal, metal fabricating) Machinery and electrical)	30.0	23.2	16.9	14.6
Transportation equipment	2.8	2.1	1.5	1.2
Non-metallic mineral	2.0	2.0	1.9	1.9
Petroleum and coal products	0.3	-	-	-
Chemical	1.3	1.4	1.7	1.8
Miscellaneous	1.1	0.9	0.8	0.7

- Insignificant

The percentage distribution of the labour force in manufacturing is illustrated in Table 7 for the census years 1951 and 1961 and also for the forecast years 1975 and 1985. To establish trends in the distribution, employment figures of 1951 and 1961 have been adjusted, as explained in the Technical Notes. The forecast has been based on the following considerations.

The textile and clothing group has lost in importance considerably during the last census decade. Knitting mills (2.6% of the labour force in 1951) virtually ceased to be a factor in local employment while the textile industry proper has also declined. If the trend established between 1951 and 1961 does not change, the textile industry may suffer the fate of the knitting industry by 1985. A slightly more optimistic trend was accepted nonetheless because this industry seems to have stabilized after a long decline. On the basis of the adjusted figures it was considered that this industry will employ approximately the same number of people in the future.

According to the adjusted figures the heavy industries, primary metal, metal fabricating, machinery, electrical equipment, expanded by 11.5% during the last census decade. These industries, almost without exception, are high-wage industries, with a marked tendency towards rising wage levels and increased output per man-hour. If the general outlook for growth in these industries were less than excellent, one would have to assume a decline in their total employment. The heavy industries, the primary iron and steel industries in particular, were able to capture an increasing portion of the domestic market. The Canadian iron and steel industry supplied 71% of domestic consumption in 1956-57 increasing to 88% in 1962. As the expansion plans of the industry show, they expect this trend to continue. Little consideration is given to foreign markets as yet, since the domestic market is still large enough. However, when the time comes the Hamilton steel industry has an excellent potential position which can be exploited to its advantage. Considering the foregoing, a slight increase, as indicated by the adjusted trend, is forecast, although this still means a decrease in proportionate importance.

The adjusted trend indicates an 8.7% increase in the employment of the transportation equipment industry from 1951 to 1961. It is hoped that this trend will be maintained. Itwould be too early to comment on the outlook of this sector, in view of the new experiment of Studebaker and the free trade agreement with the United States. Other manufacturers in this group appear to have a good outlook for growth.

The rubber industry expanded in employment, according to the adjusted figures, by 15.6% during the last census decade. It is expected that this trend will at least be maintained.

Among the secondary industries of the Metropolitan Area, tobacco products, wood, furniture and fixtures, paper and allied products, and non-metallic mineral products all increased their employment, according to the adjusted figures, by percentages ranging from 23.7% to 39.7%. The relatively high increase of employment indicates that these industries

generally comprise smaller enterprises unable to match the heavy industry's investment for improved equipment. The increase in the output per man-hour is lower, resulting in higher employment and it seems appropriate to take the trend of the adjusted figures as the basis for projection.

Two groups, the food and beverage industries and printing and publishing, showed considerable increase based on the growing urban population of the Metropolitan Area. Their respective adjusted growth rates were 55% and 64.4% in the last census decade and the same growth has been projected into the future.

The chemical industry showed the strongest increase in employment during the same period - 51.8% on the unadjusted figures or 64.4% according to the adjusted ones. This rate of expansion seemed too high to serve as a basis for forecasting since, aside from the availability of cheap water transportation, such a rate of expansion is unlikely to be maintained in the future. The average rate of expansion of all manufacturing (12% in 1951-1961) seemed to be a more conservative basis to forecast employment in this highly automated branch of manufacturing.

A few industries, like the leather industry, are represented by too small employment figures and no valid conclusions can be based on their past increase or decrease. For the purposes of forecasting, their employment had to be arbitrarily stabilized at the present employment figure.

(b) Construction

Employment in the construction industry increased by 51.8% on the unadjusted figures and 64.9% according to the adjusted ones. A trend derived from this figure appeared too ambitious in light of the forecast of the Gordon Commission and the figures have been adjusted to make them agree with the Commission's forecast, that is a 38.0% increase for the decade. Employment in the construction industry in Metropolitan Hamilton was not significantly out of line with the experience of other Canadian cities. The increase in employment during the decade reflects the normalization after the war and to some extent the Korean war and it is not

expected that it can continue at the same high rate. The productivity of construction workers has also risen markedly; the expectation of lower employment increase appears to be justified for that reason as well.

(c) Transportation, storage, communication and public utilities

Table 8

Transportation and Communication
as Percentage of Labour Force - 1961

	% of labour force 1961
Transportation	3.8
Rail	1.0
Truck	1.7
Other	1.1
Storage	**
Communication	1.4
Telephone	0.7
Post Office	0.5
Other	0.2
Utilities	1.0
Total	6.2

**Insignificant

Table 8 illustrates Metropolitan employment in this census classification by individual industries. Direct figures for the Metropolitan Area are lacking but the inference can be drawn from province-wide experience that as far as employment is concerned, the transportation industry is expanding the fastest. Since transportation employs almost two-thirds of the labour force in this classification it is fair to assume that it was chiefly responsible for the 42.6% increase in employment during 1951-1961, according to the adjusted figures. In other words, this sector expanded at the same rate as the population. Since no radical changes are predicted in the rate of population growth, it seems reasonable to assume that the 1951-1961 trend of expansion in employment will continue at least for some time.

(d) Wholesale and retail trade

According to the adjusted figures these industries employed 60.4% more people in 1961 than 1951 and this trend appears to be reasonable for a projection in the future. Separately, the increases in employment have been 50.4% and 66.9% for wholesale and retail trade respectively. Both have grown faster than the population, which is to be expected considering the generally observed trend of this industry.

It can be assumed that the numbers of those employed in wholesale warehousing will increase little in the future, but it is expected that this will be compensated by an increase of the clerical force. In retail trade there has been a consistent trend towards self-service establishments in some lines but it is not expected that this will significantly affect future growth of employment, as these forces have been at work for some time and are now part of the established trend.

(e) Finance, insurance, real estate

Employment in this group expanded by 79% during the last census decade with the bulk of employment in savings and credit institutions (banks etc.) on the one hand and real estate and insurance agencies on the other. Other components of this group are insignificant on the metropolitan scale.

There appears to be no reason to suppose that employment in this field is near the limit or point of saturation. Though Hamilton is not regarded as a financial centre, it is conceivable that the investment sector may become slightly more important than in the past, since increasing real earnings and an increasing population may create more demand for this service. The projection of the 1951-61 trend appears to be conservative.

(f) Community, business and related services

This group is commonly referred to as the service industry and on the whole, it is the group which is gaining relatively the most. The distribution of the labour force within the group is illustrated in Table 9, including the forecast for 1975 and 1985.

Table 9

Distribution of the Labour Force in the Service Industries of the Metropolitan Area

	1951	1961	1975	1985
Metropolitan labour force	100.0	100.0	100.0	100.0
All service industries	13.6	19.0	25.8	28.1
Education and related services	1.9	3.3	3.7	3.8
Health and welfare	3.7	5.2	7.3	7.9
Religious organizations	0.4	0.5	0.7	0.8
Motion picture and recreation	0.5	0.7	0.8	0.9
Services to business management	1.1	1.6	2.4	2.6
Personal services	5.4	6.4	7.8	8.4
Miscellaneous services	0.6	1.3	3.1	3.7

As to the individual components the following considerations apply:

Employment in education services was related to the growth of the school age population as it appears in the forecast of the Planning Department. It is assumed that employment, which more than doubled in the last census decade, was reasonably adequate to cope with the present need. Future employment can then be related to the population growth as defined above.

Health and welfare services consists primarily of hospital employment with employment in welfare organizations being less than one-tenth of the total in this group. During the last census decade there was a general spread of medical and hospitalization schemes and this trend is likely to continue. It rather appears that more and more people will become participants in such schemes and it would not be unreasonable to expect an even faster employment expansion than in the past. The projection of the past trend, which showed 90% increase from 1951-1961, appears to be quite conservative.

Employment in religious organizations is numerically insignificant. The increase was 89% in the past census decade which was projected into the future.

Motion picture and recreational services is a misnomer for this group. The motion picture industry proper is a small component and shows by far the smallest expansion in employment on the unadjusted figures. The adjusted increase for the whole group came to 75.5%, which was taken as the basis for the forecast. It must be understood, however, that by projecting this general trend more leisure time and higher incomes are assumed without trying to forecast the public favour of a specific type of recreation.

Services to business management is almost the fastest growing branch of the service industries and is also the one with the greatest expansion potential. During the last census decade employment increased by 105% and it can be predicted that this rate of increase will be maintained or even exceeded in the future on the basis of the general outlook of this industry. For the purposes of forecasting, the 1951-1961 trend has been projected.

The personal services branch has been the one that expanded the least during the last census decade. The potential labour force is decreasing, at least at the pay rates or earnings generally realizable in this industry. Personal services are nonetheless still the biggest single branch of the service industries. Hotels, restaurants and taverns account for more than half of the employment in this subclassification and they are, incidentally, expanding the most. It appeared logical to use the adjusted trend for projection which was 70% in the last census decade.

Miscellaneous services branch has expanded prodigiously in employment during the last census decade with an increase of 205% (i.e. the work force more than tripled). This is understandable because the general increase of living standards created an expanding market for services and, when new services are created, catch-all classifications will get most of new industries and will expand the most. It would be difficult to estimate the likely future rate of expansion of this branch, as it would be hard to predict at what rate new services will be accepted. Prudence suggests that the trend quoted above might be too high and the increase

of 1951-61 has been cut in half for the purposes of forecasting. Unfortunately there was no further information which would have suggested a less arbitrary method.

Conclusion

The result of the two projections, that is the total labour force and the trend of relative importance which determines the percentage distribution of the total, is summarized in Table 10. In the forecast section the percentage distribution is translated into actual figures to show the estimated work force. It must be emphasized that these figures are the intersection of two forecasts: the labour force on the one hand, and the distribution or relative importance on the other. It is necessary to emphasize this fact to assure that the figures are not misinterpreted.

As a specific example, the forecast for transportation equipment manufacturing for 1975 is 3,100. It would be wrong to say that "in 1975 there will be the same number at work in that industry as in 1961." It would only be correct to say that when correction has been made for the business cycle (by taking a three- or five-year average for instance), then employment in this branch will remain approximately the same.

Naturally even such a statement is subject to the usual reservation: if the assumptions are realized. When a trend line gives as little as a one-half of one per cent error on a one-year forecast it can mean ± 7% in 14 years and ± 12% in 24 years, these intervals being the ranges of predictions for 1975 and 1985. These explanations are considered appropriate to avoid two common errors in interpreting statistical forecasts: one is to put undue confidence in the figures, the other is to consider them worthless.

Table 10 Metropolitan Labour Force 1951 and 1961 Forecast for 1975 and 1985

	1951		1961		1975		1985	
	Number	%	Number	%	Number	%	Number	%
Population	280,293	-	365,189	-	567,000	-	740,000	-
Population 15 years and over	-	-	269,624	-	393,500	-	508,400	-
Labour force	113,859	100.0	151,637	100.0	208,700	100.0	264,800	100.0
Agriculture, forestry, fishing, trapping	1,610	1.4	4,214	2.8	2,500	1.2	1,300	0.5
Mining and Quarries	97	- *	287	0.2	200	0.1	300	0.1
Manufacturing	59,147	52.1	61,090	40.3	67,300	32.2	77,100	29.1
Food and beverages	3,863	3.4	5,529	3.6	8,400	4.0	11,100	4.2
Textile, knitting, clothing	6,864	6.0	3,177	2.1	2,100	1.0	1,600	0.5
Tobacco, wood, furniture, paper	2,738	2.4	3,182	2.1	3,800	1.8	4,500	1.7
Rubber and leather	1,648	1.5	2,033	1.3	2,100	1.0	2,100	0.8
Printing and publishing	1,306	1.2	1,936	1.3	3,100	1.5	4,000	1.5
Metal, machinery, electrical	34,224	30.1	35,200	23.2	35,300	16.9	38,700	14.6
Transportation equipment	3,206	2.8	3,218	2.2	3,200	1.5	3,200	1.2
Non-metallic mineral	2,315	2.0	2,986	2.0	4,000	1.9	5,000	1.9
Chemical	1,435	1.3	2,179	1.4	3,500	1.7	4,800	1.8
Other	1,548	1.4	1,650	1.1	1,900	0.9	2,100	0.8
Construction	6,952	6.1	10,585	7.0	13,900	6.7	17,500	6.6
Transportation, storage, communication, utilities	7,118	6.2	9,374	6.2	12,900	6.2	16,400	6.2
Trade	16,221	14.3	24,028	15.8	38,600	18.5	51,700	19.5
Wholesale trade	4,629	4.1	6,429	4.2	9,400	4.5	12,200	4.6
Retail trade	11,592	10.2	17,599	11.6	29,200	14.0	39,500	14.9
Finance, insurance, real estate	2,775	2.4	4,969	3.3	10,000	4.8	13,800	5.2
Community, business and personal services	15,538	13.7	28,830	19.0	53,800	25.8	74,300	28.1
Educational services	2,234	2.0	5,051	3.3	7,700	3.7	10,000	3.8
Health and welfare	4,173	3.7	7,909	5.2	15,100	7.3	20,900	7.9
Religious organizations	434	0.4	824	0.5	1,500	0.7	2,100	0.8
Motion picture and recreational	618	0.5	1,001	0.7	1,700	0.8	2,400	0.9
Service to business management	1,251	1.1	2,368	1.6	5,000	2.4	6,900	2.6
Personal services	6,175	5.4	9,685	6.4	16,300	7.8	22,200	8.4
Miscellaneous services	653	0.6	1,992	1.3	6,500	3.1	9,800	3.7
Public administration	3,496	3.1	5,483	3.6	9,400	4.5	12,400	4.7
Not stated	905		2,822	-	-	-	-	-

III - FORECAST OF RETAIL SALES IN THE C.B.D.

Summary

It is expected that by 1985 retail sales in the C.B.D. will increase by 68%, as set out in Table 11. This would correspond to an annual growth rate of 2.4%.

Table 11

Comparison of Sales in the C.B.D.
1961 and 1985 Forecast

(thousands of dollars)

	Total	Food Group	General Merchandise Group	Apparel & Accessories Group	Hardware & Home Furnishings Group	Other Retail Stores
1961	85,912.7	9,556.0	38,044.1	13,875.4	8,431.7	16,005.5
1985	147,858.4	14,926.5	75,147.1	23,996.3	15,770.1	18,018.4
Increase	61,945.7	5,370.5	37,103.0	10,120.9	7,338.4	2,012.9
%	72.1	56.2	97.5	72.9	87.0	12.6

The table shows the sales in the five census classifications in 1961 and the forecast for 1985, in thousands of dollars. The next table (Table 12) shows the same in more detail and also shows the areas from which the spending is expected to originate. The western trade area is considered to be the primary trading area of the C.B.D.; the eastern and the southern areas constitute the secondary trading area and the suburban trade area the tertiary one. These areas will be fully defined below.

The sales volumes anticipated assume that the accessibility of the C.B.D. improves at least to the extent of keeping pace with the demands of the growing population. It is also assumed that the choice of merchandise and degree of specialization offered will maintain a certain edge over the less diversified outside facilities.

Table 12

Forecast of 1985 Sales in the C.B.D.
According to Origin of the Sales by Trade Area

(thousands of dollars)

	Total	Food Group	General Merchandise Group	Apparel & Accessories Group	Hardware & Home Furnishings Group	Other Retail Group
1961 Sales	85,912.7	9,556.0	38,044.1	13,875.4	8,431.7	16,005.5
1985 Sales	147,858.4	14,926.5	75,147.1	23,996.3	15,770.1	18,018.4
Origin of 1985 Spending by Trade Area						
West	61,737.7	(14,926.5)[1]	21,641.6	9,282.8	6,127.2	9,759.6
East	22,518.7	-	13,003.1	4,408.3	2,616.6	2,490.7
South	32,065.7	-	19,433.4	4,941.3	3,968.6	3,722.4
Suburban	31,536.3	-	21,069.0	5,363.9	3,057.7	2,045.7

[1] Food spending, treated separately, is added to make this table agree with the corresponding figures of Table 11.

Source: 1961 Census

Introduction

As previously indicated, the Central Business District will, in this study, be the area comprised by census tracts 12, 13, 16 and 17. In geographical terms this means the area bounded by Cannon Street on the north, T.H. & B. on the south, Wellington Street on the east and Queen Street on the west.

The sales forecasts were made according to the trading groups listed in the publications of the Dominion Bureau of Statistics, that is: (1) food, (2) general merchandise, (3) automotive, (4) apparel and accessories, (5) hardware and home furnishings, and (6) other retail stores. This excludes the automotive group for which no forecasts were made because of the lack of necessary data.

The analysis will discuss the following points:

(1) definition of trade areas;

(2) relation of sales and income;

(3) relation of population and income;

(4) forecast of 1985 income and retail spending;

(5) the C.B.D.'s share of the retail dollar.

1. Trade Areas

The choice of the trade areas was mainly determined by geographical divisions of the area premised on natural barriers. Such a separation exists between the city and the suburban areas and is represented by the obvious division of the escarpment.

In relation to the C.B.D., the suburban metropolitan area outside the city limits is regarded as the outside or tertiary trading area. The area below the mountain divided into two parts: the area east of Wentworth Street is regarded as part of the secondary area, while the area west of Wentworth is regarded as the primary trade area. The choice of Wentworth Street as a line of division is not as obvious a choice as the geographical features; it is, however, almost exactly half-way between the C.B.D. and the Greater Hamilton Shopping Centre. It is also a north-south census dividing line within the city.

To sum up, the trade areas are defined as follows:

(a) the primary trade area, comprising the whole area below (north of) the escarpment and west of Wentworth Street that lies inside the city limits;

(b) secondary trade area, comprising all other areas within the city limits;

  (i) the eastern area, comprising all areas below the escarpment and east of Wentworth Street;

  (ii) the southern area, comprising the lands south of the escarpment, or above the "Mountain";

(c) the metropolitan suburban area - defined in the 1961 census of Canada as Wentworth County and the Town of Burlington.

Although in 1961 it could not be regarded as equal to the eastern trade area, the "mountain" was classified as secondary trade area with an eye on the future. In the eastern part there is a well developed commercial district prepared to supply a wide variety of goods, whereas inhabitants of the southern part, judging by a comparison of income and sales, purchased even some of their basic necessities outside of the trade area.

The sales analysis of the food group in the C.B.D. was based on a smaller area in the sense that the areas west of Highway 403 were not considered to be part of the trade area. In case of food there is little comparative shopping and the Chedoke Valley appeared to be a sufficient geographical barrier to justify separation.

2. Sales and Income

For the purposes of this analysis retail sales were expressed as a percentage of total income and it was found that those sales account for 60% of the aggregate total income of the metropolitan population. Table 13 shows the percentages for all six retail groups.

Table 13

Retail Spending Compared with
Total per Capita[1] Income 1961

	1961 $	%
Metropolitan Hamilton per capita total income[1]	1,650.29	100.0
Total retail spending	995.55	60.3
Spending by groups:		
Food group	280.42	17.0
General merchandise group	167.39	10.1
Automotive group	256.03	15.5
Apparel and Accessories group	67.45	4.1
Hardware and home furnishings	65.92	4.0
Other retail stores	158.34	9.6

[1] Includes income from all sources. Source: 1961 Census

The question arises, of course, as to the amount of retail spending by Hamiltonians elsewhere and tourists and other transients in Hamilton. For this reason, the same comparison between sales and income was made in eight metropolitan areas in Ontario and Quebec. The results are shown in Table 14.

Table 14

Retail Sales as the Percentage of
Total Income in Metropolitan Areas - 1961

(thousands of dollars)

	Total Income	Total Retail Sales	%
Hamilton	654,913.0	393,428.9	60.1
Kitchener	252,994.9	158,018.3	62.5
London	297,587.5	243,099.5	81.7
Montreal	3,398,388.6	2,028,557.4	59.7
Ottawa	748,427.4	437,727.9	58.5
Toronto	3,533,773.2	2,114,931.4	59.8
Sudbury	172,007.4	124,279.2	72.3
Windsor	283,644.2	175,562.4	61.9

Source: 1961 Census

As can be seen, only two of the metropolitan areas - London and Sudbury - show a significant deviation, which can be explained by the fact that the census metropolitan area is significantly smaller than the real trade area of these two cities. Indeed, the most remarkable feature of this comparison is the close agreement among different cities.

3. Population and Income

For reference, Table 15 shows the 1961 and the projected 1985 population specifically by the trading areas as described above.

Table 15

Population by Trade Area
1961-1985

Trade Area	Population 1961	Population 1985	Increase	%
West	91,320	99,800	8,480	9.3
East	107,334	133,600	26,266	24.5
South	75,329	194,700	119,303	158.4
Suburban	121,198	311,900	190,702	157.3

The income considered is the total income which, besides wages and salaries, includes pensions and other transfer payments as well as investment income. These transfer payments have a leveling effect and are an important contribution to the buying power in some areas. The leveling effect is illustrated in Table 16 in which wage and salary per capita income is compared with total per capita income in each of the trade areas. The table also

shows the projection of the same data for 1985 which is discussed in the next paragraph.

Table 16

Per Capita Wage and Salary and Total Income According to Trade Areas

Trade Area	1961 Wage & Salary Income per Capita	1961 Total Income per Capita	1961 Ratio[1]	1985 Wage & Salary Income per Capita	1985 Total Income per Capita
West	1,312	1,712	1.30	1,989	2,609
East	1,362	1,596	1.17	2,065	1,430
South	1,405	1,635	1.16	2,130	2,492
Suburban	1,479	1,662	1.12	2,242	2,583
Metropolitan Hamilton	1,394	1,650	1.18		2,515

[1] Ratio of Total Income to Wage and Salary Income.

Source: 1961 Census

4. 1985 Income and Retail Spending

An increase of 52% is expected in real per capita income by 1985. The projections are based on wage and salary income, that is, the ratio between wage and salary income and total income in each trade area is assumed to remain the same. Since income from other sources including pensions and other transfer payments is likely to constitute a greater proportion of the total by 1985, this forecast could be low. The forecast is discussed in more detail, including methodology, in the technical notes after Section IV. Suffice it to say that the Gordon Commission forecasts an increase of 42% in per capita personal expenditure for goods and services as a low estimate, 50% as a high estimate, and 44% as the average figure for the period from 1961 to 1980. The projected increase in real income used in this report is 41.4% in the same period, which appears to be conservative.

To estimate retail spending, it was assumed that the pattern of spending on goods will remain the same in 1985 as it was in 1961, with the exception of food (see Table 17). It would be hard to justify a 50% per capita increase in food consumption. Although such an increase in spending need not imply a proportionate increase in food intake, it would seem prudent to limit the increase to 30%.

Table 17

Per Capita Retail Spending
Compared with per Capita Total Income -
1961 and Projection for 1985

	1961		1985	
	$	%	$	%
Metropolitan per capita total income[1]	1,650.29	100.0	2,515.40	100.0
Total retail spending	995.55	60.3	1,453.90	57.8
Spending by groups:				
Food	280.42	17.0	364.70	14.5
General Merchandise	167.39	10.1	254.10	10.1
Automotive	256.03	15.5	389.90	15.5
Apparel and Accessories	67.45	4.1	103.10	4.1
Hardware and Home Furnishing	65.92	4.0	100.60	4.0
Other Retail Stores	158.34	9.6	241.50	9.6

[1] Includes income from all sources.

For lack of data a possible shift in consumer spending was not contemplated. Although some tendencies are generally recognized, they are not clear-cut enough to make them useful in modifying this forecast.

5. The C.B.D.'s Share of the Retail Dollar

Looking at the 1961 retail sales as published in the census, the most salient feature is the high concentration of sales in two areas. The C.B.D. is one area (i.e. census tracts 12, 13, 16, 17), the other is tract 35 which comprises the Greater Hamilton Shopping Centre. These five census tracts accounted for almost 50% of all retail sales in Hamilton in 1961 and almost 40% of the retail sales in the Metropolitan Area. If food spending, which seems to take place at the closest suitable outlet, is excluded, the concentration is even more pronounced.

The continuation of such a high degree of concentration would be at quite a variance with North American experience. It would also be difficult to maintain by policies consistent with a free-enterprise type of economy. There is considerable evidence to support the suspicion that significant decentralization has already taken place since the census was taken.

The C.B.D.'s share of the retail dollar has been estimated on the basis of the 1961 sales. The results can be seen in Table 18 which shows in percentages the C.B.D.'s share in each of the four retail groups. It should be noted that 100% is in each and every case the total consumer spending by area and retail group. Projections of the corresponding ratios for 1985 are also shown in the lower half of the table.

Table 18

C.B.D.'s Share of Total Retail Spending
1961 and Estimates for 1985

Origin Trade Area	Year	Ceneral Merchandise Group %	Apparel & Accessories Group %	Hardware & Home Furnishings Group %	Other Retail Stores %
West	1961	82.0	72.7	59.0	39.1
	(1985)	(82.0)	(87.2)	(59.0)	(39.1)
East	1961	39.5	33.2	20.2	16.0
	(1985)	(39.5)	(33.2)	(20.2)	(8.0)
South	1961	59.8	51.8	27.4	22.5
	(1985)	(39.5)	(24.9)	(20.5)	(8.0)
Suburban	1961	52.4	52.2	25.1	25.2
	(1985)	(26.3)	(16.6)	(9.7)	(2.7)

In forecasting the C.B.D.'s share of the retail dollar in 1985, it was accepted that retail outlets (shopping centres) will be established in all suburban areas and on the "mountain" when that is economically practicable. It is felt that a shopping centre of 200,000 square feet of rentable space would be significant enough to affect sales in the C.B.D. Assuming an additional two-thirds "safety factor", which may not be adequate in every case, a shopping centre of this size would be built when aggregate incomes amount to $50-$55 million in the area from which the shopping centre can reasonably expect to draw customers. This requires a population of not less than 35,000 in the trading area.

According to the population forecast this last condition will be fulfilled in Burlington and Saltfleet Township by 1985 and in all probability in the Mountain area as well.

Food Group

As mentioned previously, the area taken into consideration in the analysis is not the whole western trade area, but rather that part of it lying east of the Chedoke Valley or Highway 403. This is necessary because food buying is highly localized; it is the "convenience" shopping in the truest sense. Selection of an area as big as the whole trade area would conceal any pattern of interregional exchange of buying power if such in fact existed. It might be thought that the working population (labour force) of the C.B.D., who do substantial convenience shopping in the area, would also contribute to food sales. This hypothesis did not survive the test of analysis, and it was found that all sales in the C.B.D.'s food outlets can be accounted for by the estimated spending of the resident population as shown in Table 19.

Table 19

Projection of Food Sales in the C.B.D.

		Projections		
	1961	1985	Increase	%
Population (restricted trade area)	68,530	82,300	13,770	20.1
	($000)	($000)	($000)	
Estimated expenditure of population in food stores	$25,775.8	40,261.6	14,485.8	56.2
Sales in food stores	$25,527.4	40,261.6	14,734.2	-
Food sales in the C.B.D.	$ 9,556.0	14,926.5	5,370.5	56.2

The first basic assumption of this projection is that this virtual equality of sales and spending in the restricted trade area will continue during the range of the forecast. The second assumption is that the rate of growth of the sales in the C.B.D. will be the same as the rest of the restricted trade area. If the growth is assumed to be uniform within the area there will be no tendency to locate outlets immediately outside the C.B.D. Thirdly the correctness of this projection, in addition to other cautionary reservations of a general character, is even more dependent upon the population density forecasts of the Planning Department than the rest of the retail sales projections. If substantial apartment redevelopment

should take place, an occurrence not considered by the Department at the time it prepared its forecasts, it might warrant the revision of the present projection. Fourthly, it is also assumed that the socio-economic structure of the area would not change during the range of the forecast. This is a rather bold assumption because redevelopment might represent, in addition to an increase in numbers, a change in the average per capita income of the inhabitants, a cardinal factor in these forecasts. It was, however, not possible to make any allowances for this contingency in absence of any trend indication. The average per capita income (expressed in 1961 dollars) is expected to rise by 52.4% during the period of the forecast but this is not what is meant here. Rather, a revision of the projection would be necessary if there were a significant disparity between this predicted general trend (assuming it is a correct one) and the particular trend of the restricted trade area that might be caused by the replacement of populations of one income level with populations of a different level.

Automotive Group

The data presently available make no differentiation between service station and car sales and no estimate was made for this group. The sales of gasoline are influenced considerably by transient buyers and no figures are available relating to them. Since three-quarters of all sales are car dealers' sales and car ownership is expected to increase, it seems likely that this group will remain at least the same level.

IV - FLOOR SPACE FORECAST FOR THE C.B.D.

Summary

The floor space occupied by offices will show the most marked increase by 1985 and a smaller increase is foreseen in the floor space used by retail trade and service establishments. Other forms of land use in the C.B.D. are bound to decline although it is impossible to indicate in specific figures just how fast this may happen. An expanding economy could considerably accelerate the disappearance of economically obsolescent uses to make way for new ones, but vacated buildings may be taken over by secondary users until they deteriorate beyond the point of usefulness; this however takes

no account of economic obsolescence. The assumption for the purposes of the forecast is that the floor space in use in 1961 will become economically (if not physically) obsolete over a period of 50 years.

Table 20

Occupied Floor Space in the C.B.D.
1961 and Forecast for 1985

	1961	1985 High		1985 Low	
	Sq. ft.	Sq.ft.	%	Sq.ft.	%
Retail trade and personal service	2,370,000	3,400,100	+ 43.5	3,254,700	+37.4
Offices	771,700	1,804,500	+133.8	1,250,200	+62.0
Wholesale	720,920	537,200	- 25.5	537,200	-25.5
Storage	214,320	214,320	- 6.1	214,320	- 6.1
Industry	1,377,530	1,280,300	- 7.1	1,280,300	- 7.1

General

The Hamilton Area Transportation Study collected floor space data according to the following classifications:

(a) Office

(b) Retail trade and services

(c) Wholesale

(d) Storage

(e) Industrial

Under (b) it was necessary to determine the division of floor space between retail trade and service establishments in the C.B.D.; the data for this separation were taken from the original H.A.T.S. survey sheets. The floor space data are summarized in Table 21.

Table 21

Floor Space Use by Census Tracts
in the C.B.D. - 1961

Census Tract	Retail	Office	Wholesale	Storage	Industry
12	330,850	319,550	109,410	26,920	86,560
13	706,990	43,600	240,740	166,800	425,000
16	994,240	120,840	280,360	-	741,530
17	337,470	287,700	97,410	20,600	124,440
Total	2,369,550	771,690	720,920	214,320	1,377,530

Source: H.A.T.S. Survey

Table 22

Floor Space Forecast:
Offices in the C.B.D.
1961-1985

	Existing Floor Space 1961	Attrition 1961-1985	Floor Space Remaining 1985	Floor Space Added 1961-1985		Total Floor Space 1985	
				High	Low	High	Low
L OFFICE SPACE	771,700	370,400	401,300	1,403,200	848,900	1,804,500	1,250,200
CONSTRUCTION	13,900	6,700	7,200	17,600	9,200	24,800	16,400
WHOLESALE	5,400	2,600	2,800	9,000	4,500	11,800	7,300
FINANCE, INSUR., REAL ESTATE	571,600	274,400	297,200	894,800	579,400	1,192,000	876,600
Financ'l & Cred. Establish'ts	312,300	149,900	162,400	304,600	199,200	467,000	361,600
Investment Dealers	104,300	50,100	54,200	256,800	152,900	311,000	207,100
Insurance Carriers	81,000	38,900	42,100	197,900	118,800	240,000	160,900
Insur. & Real Estate Agents	74,000	35,500	38,500	135,500	108,500	174,000	147,000
COMMUNITY, BUSINESS & PERSONAL SERVICES	180,800	86,800	94,000	481,900	255,900	575,900	349,900
Physicians & Dentists	8,400	4,000	4,400	20,600	11,500	25,000	15,900
Accountants	23,600	11,300	12,300	61,400	36,900	73,700	49,200
Advertising	6,200	3,000	3,200	15,800	9,700	19,000	12,900
Engineering Consultants	13,100	6,300	6,800	36,600	20,500	43,400	27,300
Legal Services	72,100	34,600	37,500	172,500	112,800	210,000	150,300
Professional Organizations	15,600	7,500	8,100	74,200	17,500	82,300	25,600
Other Services	41,800	20,100	21,700	100,800	47,000	122,500	68,700

The data in the summary form of the Table were not suitable for forecasting, which required an evaluation of the floor space used by various types of establishments. The evaluation was made either directly by requesting information (if the establishments were not too numerous) or by obtaining data from the original H.A.T.S. survey sheets.

Due to the relative uncertainty of demand, the difficulty of land assembly and the existing leases, it is difficult to make assumptions as to the number of structures that may be demolished by a given date and thus increase the demand for new floor space. It would nevertheless be unrealistic to assume that all the structures standing in 1961 would be still functional in 1985. It was decided to take a constant yearly decrement, equal to 2% of the 1961 floor area, which implies an increasing rate of physical, functional, or economic obsolescence. This means that in 50 years all of the 1961 floor area will either be demolished or will have a "lower" use than originally. Considering the present age and general physical condition of the structures this assumption cannot be considered bold. Retail floor space lost by clearance for the Civic Square Scheme is added to the demand, taking account however of the higher sales per square foot expected in new facilities. This was not done with respect to office floor space, the estimated loss being quite small (50,000 square feet).

The difference between the summary figures of the following tables and the preceding one is due to rounding. Floor space data by class or kind of establishments are approximate evaluations, based on a sample of the survey sheets of the H.A.T.S. study; the data on the survey sheets are themselves in many cases approximate.

(a) Offices

Table 22 summarizes both the 1961 floor space and the forecast for 1985. The forecast was made by using the labour force projection for the Metropolitan Area. The high estimate assumes a high concentration of future office job opportunities in the C.B.D.; the low estimate on the other hand takes as a basis the forecast of the Hamilton Area Transportation Plan, which predicted an increase of 62% in office job opportunities in the C.B.D.

The H.A.T.S. forecast is based in turn on the forecast by the Planning Department of relatively low density in the core area. Both the population and density forecasts of the Department appear to be conservative in the light of present evidence and this figure should be accepted as the minimum likely to be attained. The high estimate on the other hand represents a greater concentration of future job opportunities in the C.B.D. than now appears likely. The importance of future development in Burlington, which is a well established secondary focus, cannot be dismissed and the high estimate will probably be a ceiling up to 1985, or perhaps beyond that date.

The method of the low estimate is simpler and will be explained first. The predicted 62% increase in office job opportunities was assumed to correspond to an equivalent increase in floor space. The total increase was then shared by the various users according to their relative growth as established by the labour force forecast. The general trend towards an increase in the ratio of floor space to employees in every type of use was ignored.

In making he high estimate the following considerations applied to the various types of uses:

Office floor space occupied by the construction industry is expected to expand in the C.B.D. at approximately the same rate as the industry expands in the Metropolitan Area.

Financial institutions, which are mainly represented by the branch offices of chartered banks, are expected to increase their employment and their floor space in proportion to the increased population and labour force in the core area.

It was assumed that insurance companies and investment houses with offices in Hamilton will locate almost exclusively in the C.B.D. There has been a tendency in the past decade on the part of the insurance companies not to maintain branch offices in Hamilton. This trend may continue, but it is still possible to assume that the floor space per employee will increase. The present ratio appears to be quite low.

Real estate and insurance agents are not as highly concentrated in the core area as the foregoing components of the finance, insurance and real estate group, nor are they expected to show a significant tendency towards greater concentration. On the contrary, with the growth of the Metropolitan Area there will be not only more agents but the major firms will also find it convenient to have branch offices in the suburbs. Surveys of several North American metropolitan areas found that approximately 80% of the finance, insurance and real estate group tends to locate in the C.B.D. In the case of Hamilton, the proximity of Toronto makes it difficult to apply the findings of other surveys. It was assumed that only 60-70% of the increase in the real estate labour force will be added in the C.B.D., with a corresponding increase in office space requirements.

The types of office space users which are classified in the census as "community, business and personal services" also tend to seek downtown locations. It was accordingly assumed that growth in employment of these types of business will be virtually confined to the C.B.D.

There is an extension of office buildings south of the T.H. & B. railway tracks which is not part of the study area, although it was considered as part of the C.B.D. by other studies. The hospital and the Medical Arts Building established a focus which will doubtless have an effect on future development. Office buildings of fairly recent construction in this area will enhance the tendency to extend the C.B.D. southward. If this proclivity should continue, office floor space estimates for the C.B.D. will have to be modified accordingly.

The proposed Civic Square development will eliminate an estimated 50,000 square feet of office space. This will not create any immediate demand for new floor space, however, since structures now under construction and available for rental in 1966 will add 380,000 square feet to the supply.

Table 23

Floor Space Forecast: Retail Trade and Services in the C.B.D. 1961-1985

	Existing Floor Space 1961	Attrition and Loss 1961-1985	Floor Space Remaining 1985	Floor Space Added 1961-1985		Total Floor Space 1985	
				High	Low	High	Low
LL RETAIL	2,370,100	1,576,100	794,000	2,520,000	2,303,600	3,314,000	3,097,600
TRADE	2,005,300	1,298,900	706,400	2,120,700	1,904,300	2,827,100	2,610,700
Food Stores	241,200	182,800	58,400	238,800	126,100	297,200	184,500
Department & Variety	736,400	353,400	383,000	922,600	922,600	1,305,600	1,305,600
Apparel & Accessories	303,400	229,900	73,500	338,500	326,800	412,000	400,300
Hardware & Home Furnishings	291,000	204,400	86,600	333,600	279,400	420,200	366,000
Other Retail Stores	433,300	328,400	104,900	287,200	249,400	392,100	354,300
SERVICE	364,800	277,200	87,600	399,300	399,300	486,900	486,900
Shoe Repair	16,500	12,400	4,100	16,900	16,900	21,000	21,000
Barber Shop & Beauty Salons	56,500	54,100	2,400	67,600	67,600	70,000	70,000
Laundries	44,500	21,400	23,100	32,300	32,300	55,400	55,400
Photograph Studios	28,500	21,600	6,900	28,600	28,600	35,500	35,500
Restaurants	100,000	88,000	12,000	112,000	112,000	124,000	124,000
Motion Pictures & Recreation	101,000	66,500	34,500	124,500	124,500	159,000	159,000
Miscellaneous Services	17,800	13,200	4,600	17,400	17,400	22,000	22,000

(b) Retail

The retail floor space incorporates both retail trade and service establishments. No forecast was made which would be applicable to automotive stores, hotels, and taverns, because of the lack of floor space data relative to these establishments in a form suitable for analysis.

The forecast of the floor space needs was made on the basis of the retail sales analysis in the case of retail trade establishments, and on the basis of the labour force forecast for service establishments. Table 23 summarizes the forecast for retail trade and service industries.

The need for retail floor space was estimated from the 1985 retail sales forecast for each class of outlet by using the appropriate sales volume per square foot. A low and a high figure of sales per square foot required to justify economically new floor space resulted in a high and a low estimate respectively. A more detailed discussion of the method used is contained in the Technical Notes.

It was impossible to use the same method to estimate service floor space. Census data relative to receipts of service establishments have only recently been published and in a form that severely limited their usefulness. As an alternative method, the floor space ratio per employee and the labour force forecast were used. This method is less reliable than the one used for trade and also made it impossible to make the high-low type of projection. The resulting error is nevertheless thought to be small because the service floor space is no more than 15% of all retail floor space. The high and low estimates of the service floor space are therefore identical in the table.

In the case of the personal services, as a matter of caution it was assumed that employment will expand in proportion to the population plus half of the increase in total C.B.D. employment. Restaurants were treated separately and the whole increase in employment was considered because everybody living or working in the C.B.D. may require their services. It was more difficult to make this assumption about other outlets which

essentially provide more of a family type service which is the reason why only half of the increase in C.B.D. employment was taken into consideration; the estimate for barber shops and beauty parlors may accordingly be low.

(c) Wholesale Establishments

In 1961 there were 720,000 square feet occupied by wholesale merchants. The proposed downtown development will eliminate 183,700 or about 25% of this total.

It can be assumed that wholesale establishments with warehouses, both new establishments and those relocating, would prefer locations with convenient access to the highway or expressway system. Wholesale merchants tend to locate at optimal distribution points, namely, on the perimeter of the high congestion area. It is not expected that congestion in the C.B.D. will in the long run be alleviated by the transportation plan. It is quite possible that the loss of almost two hundred thousand square feet of floor space will give to some aging structures a new lease on life, but otherwise no land demand is foreseen for new development of this type.

(d) Storage

In 1961 there were 214,320 square feet used for this purpose. The downtown development proposals will eliminate only 13,000 square feet but other old structures are now also under demolition. The same consideration applies here as to wholesale warehouses, only to a stronger degree, because the general outlook for storage gives little hope for significant growth. In any event there is little reason to assume any demand for this type of land use in the C.B.D.

(e) Industrial

There were 65 establishments occupying 1,377,500 square feet in the C.B.D. in 1961, of which the urban renewal plans will eliminate 97,200 square feet. Thirty-three establishments were in the printing, publishing and lithographing field, followed by metal fabricating with 14 establishments. The latter probably occupy more floor space than the former since

they employ almost as many people as the printing industry and the average floor space per employee is higher.

Printing and allied industries have a marked tendency to settle in downtown. Their use of floor space is efficient and it is not expected that their concentration in the C.B.D. will substantially lessen. The same may be said about jewellery, optical and similar precision manufacturing industries which in particular are likely to move into former office buildings, thereby extending their economic life. Though other industries might leave the downtown area this does not mean that the industrial use of the land will thereby change, since new industries in the market for low cost rental accommodation may take their place. On the whole it is highly unlikely that there will be an increased demand for industrial land in the C.B.D.

Technical Notes

In the following notes some aspects of the methodology used will be explained. No reference is made to the population forecast; further information relative to it can be obtained from the original document of the Planning Department.

Labour Force

The only point which needs explanation here is the "inflating-deflating" factor used in adjusting the 1951 and 1961 labour force figures.

Table M-1 contains the basic input data to be considered. The same data are graphically represented in Chart M-2. The dotted line connecting the 1951 and 1961 points shows the trend line that would have been indicated by taking only the census years.

Table M-1

Industrial Composite Index
Metropolitan Hamilton
1948-1962

Year	Index	Adjusted Index
1948	96.9	
1949	100.0	104.0
1950	100.8	104.7
1951	109.5	105.5
1952	109.2	106.2
1953	111.1	106.9
1954	103.6	107.6
1955	106.4	108.4
1956	113.8	109.1
1957	114.4	109.8
1958	105.0	110.6
1959	112.0	111.3
1960	111.3	112.0
1961	108.1	112.8
1962	113.2	113.5
1963	118.0	114.2

(Census years underlined)

The solid line, representing the trend with plus-minus one and two standard deviations also indicated, was fitted by the least squares method.

The equation is as follows:

$$Y = 109.1 + 0.73\ X$$

$$S_y = 3.7$$

An industrial composite index can be obtained from this equation which eliminates fluctuations in the years 1948-63 but reflects the trend. This adjusted index, also shown in Table M1, was used to calculate an adjusted labour force in the census years. Adjusted labour force figures were then calculated for the various industries by assuming that the adjustment would not affect the distribution of the total labour force. Calculations were identical in principle for 1951 and 1961, except that the 1951 labour force figures were deflated while the 1961 figures were inflated. From these adjusted figures a growth trend could be projected for each of the various industries. These trends were used to establish the relative distribution of the 1975 and 1985 labour force.

Retail Trade

The purpose of the retail sales forecast is to determine land use needs in the C.B.D. and for this a projection of the real income was needed. Explanations regarding this forecast and also the distribution of retail spending - the other significant factor - are given in the following sections.

I - Real Income

Real income is income in relation to prices. Though the term is often used loosely it has no real meaning unless it is stated what prices it is related to, or in other words, what deflating factor was used. The consumer price index was chosen for this purpose and will be dealt with in more detail below. For the forecast of income the average weekly wage and salary income was used. Total income would have been preferred to wage and salary income, but unfortunately adequate data were not available.

Wage and salary income data as published by the D.B.S. for Metropolitan Hamilton, covering the period of 1945-1963, were fitted with a straight line by the least squares method. The equation of the line is as follows:

$$Y = 28.8596 + 3.4253\ X$$

$$S_y = 1.389$$

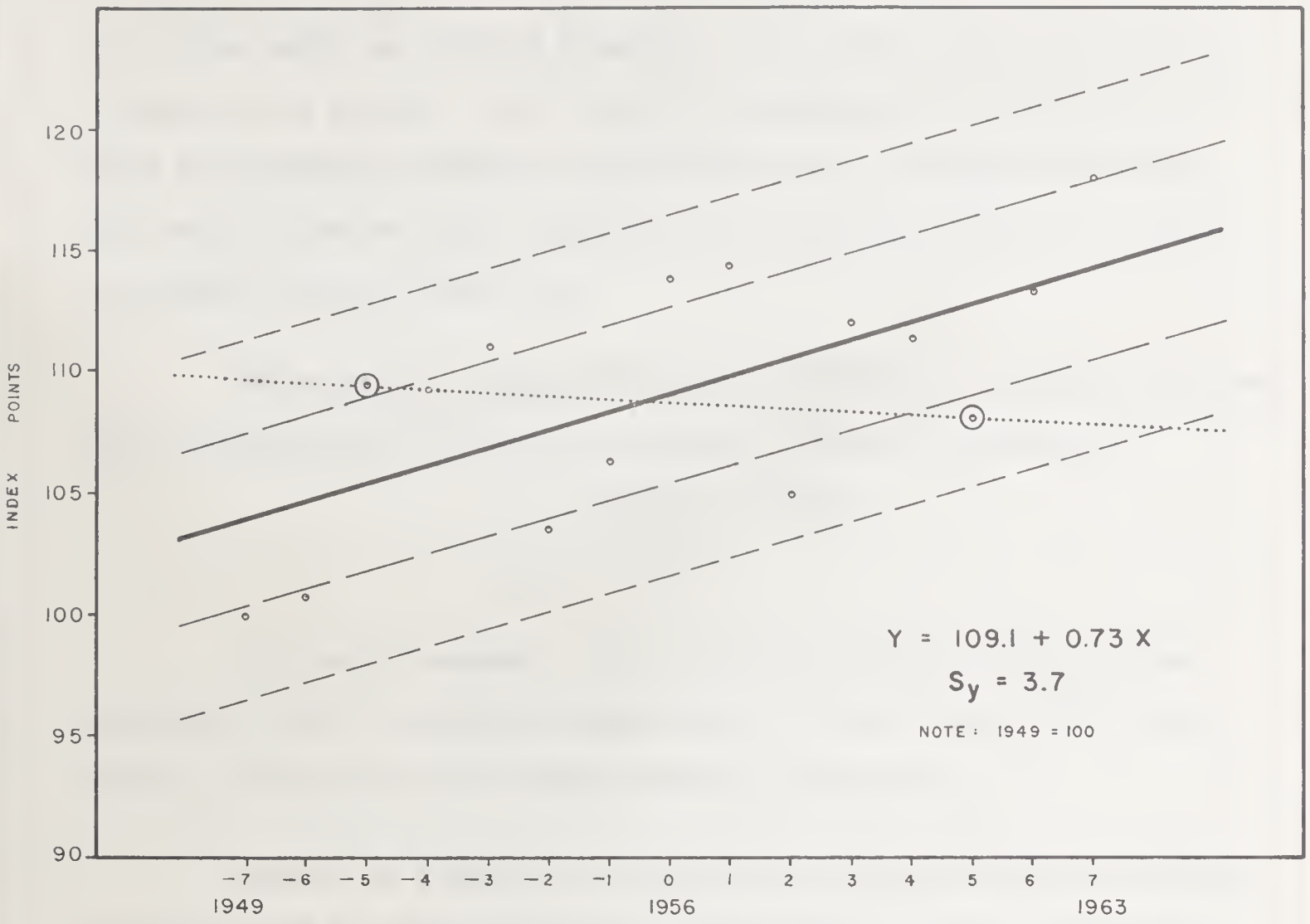
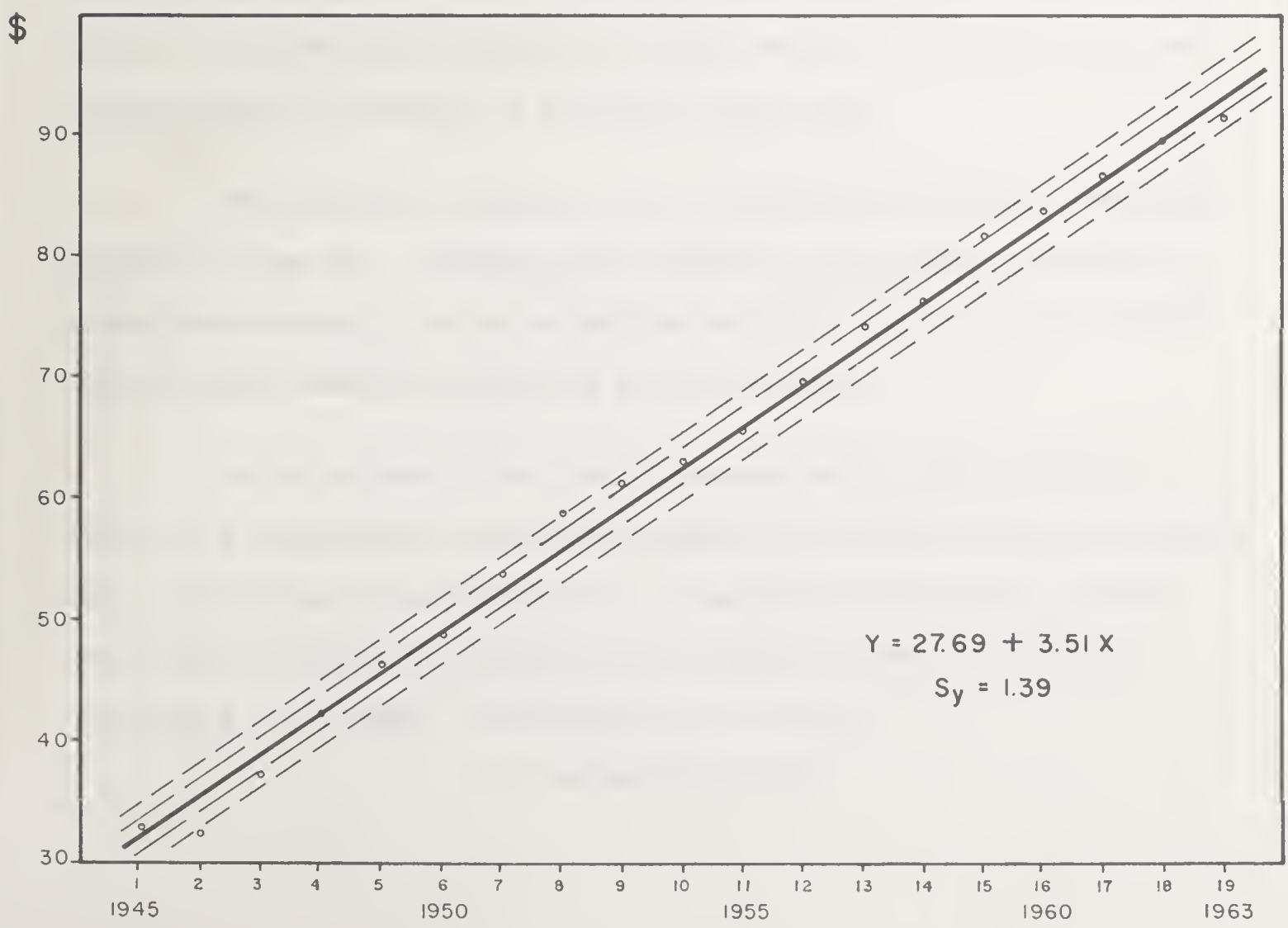


CHART M-2 – TREND OF THE INDUSTRIAL COMPOSITE INDEX
METROPOLITON HAMILTON 1949 — 1963

CHART M-3 – AVERAGE WEEKLY WAGE & SALARY INCOME
1945 – 1963



or in other words the standard deviation of the actual values from the calculated ones is $\pm$ \$1.39. This trend line is graphically represented in Chart M-3, which also indicates plus-minus one and two standard deviations. The actual values and those calculated by the regression equation are shown in column #1 and #2 of Table M-6.

The regression equation of the wage income alone (excluding salaries) for the same period, calculated for control, is given for comparison:

$$Y = 27.9734 + 3.5795\ X$$

$$S_y = 1.793$$

The yearly increment, which is the co-efficient of X - \$3.58 as compared to \$3.43 - is slightly higher than in the first case. The fluctuations, as measured by the standard deviation, are greater.

Because the estimate is of retail sales, the consumer price index was used. This is theoretically not quite correct since some commodities are included in the index which are not bought and sold in retail stores and others are excluded which are. Further the consumer price index is composed of a number of prices according to certain weights which are determined by buying habits. It cannot be said that buying habits will be the same in 1985 as they are now or, rather, as they were in 1949, the base year of the index. The overwhelming probability is that they will be different and the forecast should accordingly be taken with reservation.

The object was, however, not to forecast price levels or even real income, but land use. Although such a prediction considering the above inherent inaccuracies is not as reliable as one might wish, it is more accurate than any other methods usually used for this purpose.

As can be seen in the graphic representation of the trend in Chart M-5 a satisfactory straight line could not be fitted without eliminating data. Such solution was considered and rejected for theoretical reasons. The selected equation is a second degree parabolic curve, the base year for which X = 1 is 1946. The equation is as follows:

$$Y = 68.607 + 15.487\ X^{\frac{1}{2}}$$

The standard deviation of the Y values is

$$S = 3.341$$

or in other words $\pm$ 3.3 index points. Both the actual and calculated values of Y can be found in columns #4 and #5 of Table M-6.

For ease of computation all calculations were made in 1961 dollars, consequently columns #3 and #6 represent columns #2 and #5 recalculated with 1961 as the base year equal to 100. Then the income index in column #3 is deflated by the price index in column #6, to produce an index of real income in constant 1961 dollars shown in column #7.

The question arises as to the confidence limit of these results. To be sure, confidence limits in forecasts of this kind have meaning only if all factors influencing the trend have been correctly assessed or at least will assume values within the postulated limits. This is rather unlikely for a period of 22 years. Nevertheless, the estimated high and low estimates for 1985 have been worked out and are as follows:

		Low	Middle	High
Average Weekly Wage and Salary Income	1961	-	$ 87.09	-
	1985	$117.98	$132.71	$147.44
% increase from 1961		35.5	52.4	69.3

Granting the above proviso, the mathematical probability is that there are only three chances in 1,000 that the actual value will lie outside the high or low limits, and the probability is that it will be nearer to the middle value than either to the high or the low one.

It may be objected that an increase of the consumer price index has been assumed. One may think that constantly rising prices are an undesirable phenomenon. This indeed is true but unfortunately experience suggests that stability of prices can hardly be expected.

The projection does show a tendency toward price stabilization, while average wages and salaries are assumed to increase at a straight line trend. This is not unreasonable considering the expected advances in productivity. In Part IV, this forecast was compared with the implicit predictions

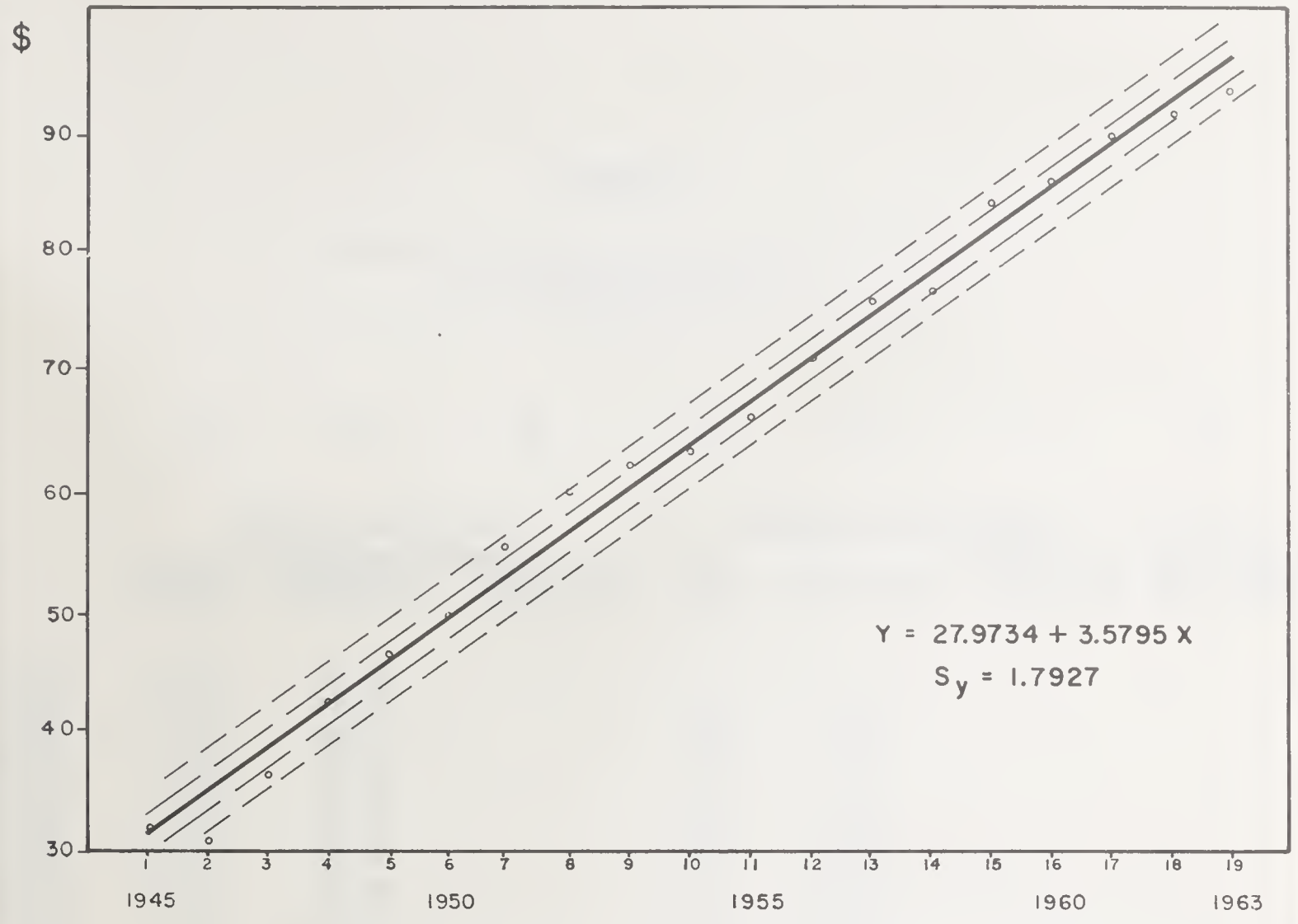


CHART M-4 - AVERAGE WEEKLY WAGE INCOME
1945 — 1963

CHART M-5 — CONSUMER PRICE INDEX
1946 — 1963

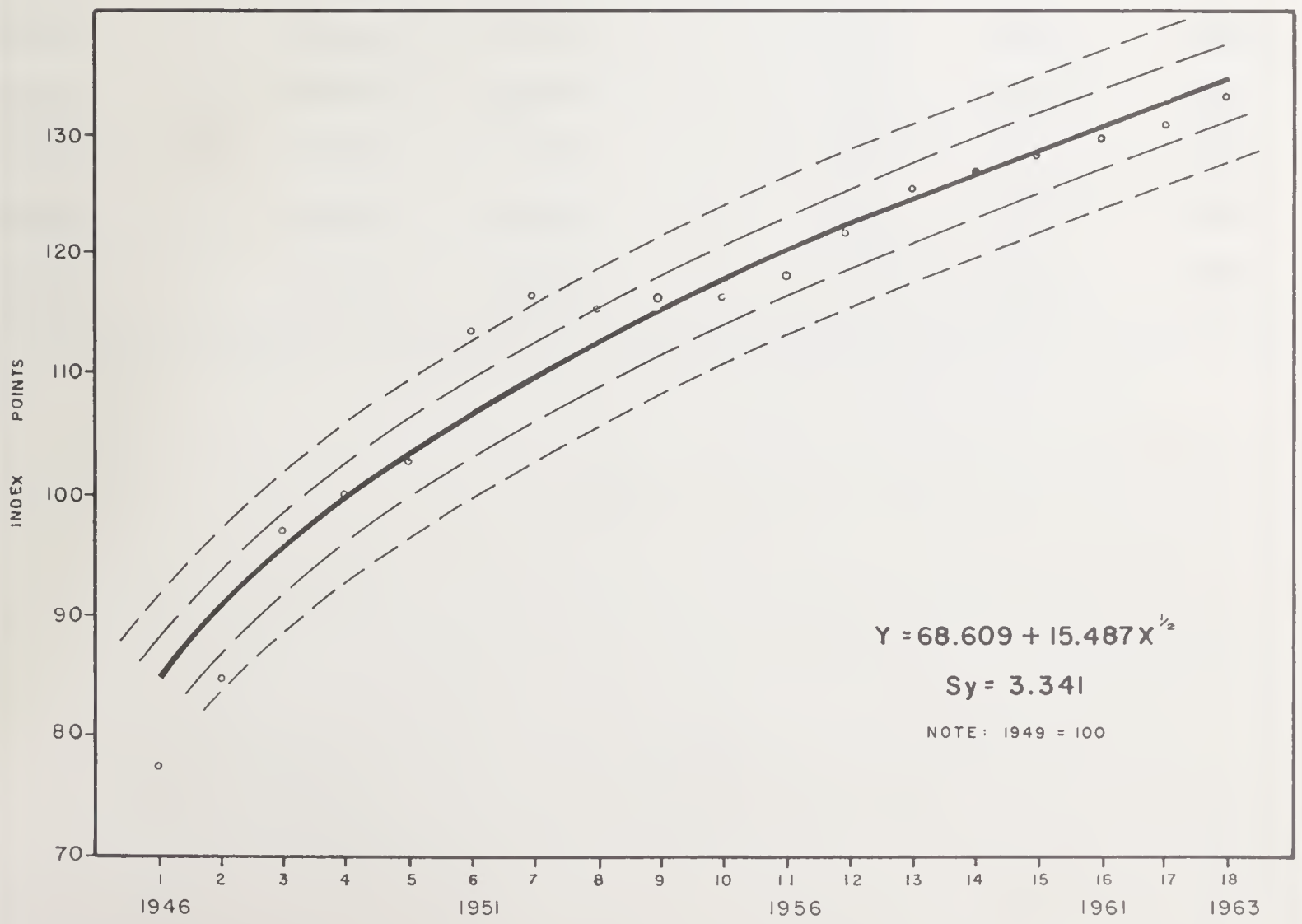


Table M-6

Projection of the Index of Real Income
in Metropolitan Hamilton
1961-1985

	#1	#2	#3	#4	#5	#6	#7
	Average Weekly Wage and Salary Income			Consumer Price Index			Index of
	Actual	Calculated	1961 = 100	Actual	Calculated	Calculated 1961 = 100	Real Income 1961 = 100
	$	$	%				
1945	32.89	32.28					
1946	32.59	35.71		77.5	84.9		
1947	37.42	39.18		84.9	90.5		
1948	42.50	42.56		97.0	95.4		
1949	46.65	45.99		100.0	99.6		
1950	48.91	49.41		102.9	103.2		
1951	54.11	52.84		113.7	106.5		
1952	58.94	56.26		116.5	109.6		
1953	61.52	59.69		115.5	112.4		
1954	63.20	63.11		116.2	115.1		
1955	65.77	66.54		116.4	117.6		
1956	69.97	69.96		118.1	120.0		
1957	74.44	73.39		121.9	122.3		
1958	76.41	76.81		125.1	124.5		
1959	81.75	80.24		126.5	126.6		
1960	84.00	83.66		128.0	128.6		
1961	86.84	87.09	100.00	129.2	130.6	100.0	100.00
1962	89.68	90.52	103.94	130.7	132.5		
1963	91.55	93.94	107.86	133.0	134.3		
1966	-	104.22	119.67	-	139.6	106.9	112.00
1971	-	121.34	139.32	-	147.6	113.0	123.3
1976	-	138.47	159.00	-	154.8	118.5	134.1
1981	-	155.60	178.66	-	161.5	123.7	144.5
1985	-	169.30	194.39	-	166.6	127.6	152.4

of the Gordon Commission for the year 1980. The forecast of the Commission is 2.6% higher in 1980 than our results the same year. Although it is not claimed that this small deviation puts an automatic stamp of approval on the method adopted, the close agreement of the figures is reassuring.

II - Distribution of Spending 1961 and 1985

To determine the C.B.D.'s share of the total spending in Metropolitan Hamilton a simplified origin - destination analysis was used. The principle of this analysis is the evaluation of the spending of the population of a trade area, called origin, by the census classification of retail stores. In other words, in each of the trade areas, the amount the inhabitants spend in Food Stores, General Merchandise Stores, etc., was determined. The spending by retail groups was distributed among the four trade areas in such a way as to make the spending from the origin areas agree with the sales of the destination area.

In two classes of retail outlets, namely Hardware and Home Furnishings, and Other Retail Stores, the estimated spending had to be further divided. The principle of division is convenience shopping on one hand and comparative shopping on the other. Shopping for convenience goods, as opposed to shopper's goods, takes place in the most convenient location without a significant attempt to compare quality or prices. The following types of outlets, most often accepted as convenience stores, have been so classified for the purposes of this study:

1. All food stores.
2. Hardware and electrical supply stores.
3. Television and radio repair shops.
4. Household appliance repair shops.
5. News-stands, cigar stores and tobacconists.
6. Drug stores.
7. Patent medicine stores.
8. Liquor, wine and Brewer's Retail Stores.
9. Neighbourhood service stations.

Food stores were treated separately in Part IV and automotive stores including neighbourhood service stations were not considered at all.

The classification of the Other Retail Stores had to be divided into three groups. Besides the two groups, convenience and shopper's goods, there was a group of stores selling shopper's goods by definition for which a

geographical allocation of the sales would have been impossible on the basis of the data available; this group was therefore excluded. In the case of a few quasi-unique specialty stores, also in this third group, the allocation of the sales would have had no statistical significance. The sales in this last group amount to 25.4% of the sales of the Other Retail Stores classification and 2.4% of all retail sales. It should be noted that approximately four-fifths of this unallocated total represent fuel sales.

Table M-7

Distribution of Sales
by Type of Shopping
Metropolitan Area - 1961

I - Hardware and Home Furnishing Group

	($000)	
Total Sales	26,051.8	100.0%
Convenience Shopping	6,001.8	23.0%
Comparative Shopping	20,050.0	77.0%

II - Other Retail Stores

	($000)	
Total Sales	62,574.0	100.0%
Convenience Shopping	32,403.0	51.8%
Comparative Shopping:		
Considered in analysis	14,240.7	22.8%
Not considered	15,930.3	25.4%

Table M-7 shows the amounts involved and the corresponding percentages for both the hardware and the "other" outlets.

It is appropriate to comment on the interpretation of the origin-destination tables which are given here in full for each of the four retail classifications studied, namely General Merchandise, Apparel and Accessories, Hardware and Home Furnishings and Other Retail Stores. Trade areas shown in the stub of the table are the areas of origin, whereas the areas in the caption represent the areas of destination. The first horizontal line of figures (under the caption) represents the total sales by trade area, the sum of all the spending inputs appearing in the columns under each sales figure. The first column, adjacent to the stub of the table, represents the total spending

Table M-8

Origin-Destination Table

General Merchandise Group
1961

(thousands of dollars)

		Trade Area of Destination				
		C.B.D.	West*	East	South	Suburban
	Sales	38,044.1	38,520.0	24,428.9	282.5	2,920.8
Area of Origin	Spending					
West	15,858.7	13,004.0	13,479.9	2,378.8	-	-
East	17,375.3	6,854.6	6,854.6	10,520.7	-	-
South	12,490.8	7,471.5	7,471.5	4,736.8	282.5	-
Suburban	20,427.4	10,714.0	10,714.0	6,792.6	-	2,920.8

Table M-9

Apparel and Accessories Group
1961

(thousands of dollars)

		Trade Area of Destination				
		C.B.D.	West*	East	South	Suburban
	Sales	13,875.4	15,618.2	5,952.7	1,512.0	3,572.1
Area of Origin	Spending					
West	6,389.9	4,647.1	6,389.9	-	-	-
East	7,001.2	2,324.9	2,324.9	4,676.3	-	-
South	5,033.0	2,605.5	2,605.5	915.5	1,512.0	-
Suburban	8,230.9	4,297.9	4,297.9	360.9	-	3,572.1

*Including C.B.D.

Table M-10

Origin-Destination Table

Hardware and Home Furnishing Group
1961

(thousands of dollars)

		Trade Area of Destination				
		C.B.D.	West*	East	South	Suburban
	Sales	8,431.7	10,996.2	9,115.1	1,665.3	4,275.2
Area of Origin	Spending					
West						
- Conven.	1,436.4	1,101.4	1,436.4	-	-	-
- Compar.	4,809.0	2,585.4	3,371.7	1,437.3	-	-
East						
- Conven.	1,987.8	-	-	1,987.8	-	-
- Compar.	4,854.9	1,381.5	1,801.8	3,053.1	-	-
South						
- Conven.	1,131.4	-	-	-	1,131.4	-
- Compar.	3,787.7	1,347.7	1,757.6	1,496.2	533.9	-
Suburban						
- Conven.	1,850.3	-	-	-	-	1,850.3
- Compar.	6,194.3	2,015.7	2,628.7	1,140.7	-	2,424.9

Table M-11

Other Retail Stores - 1961

(thousands of dollars)

		Trade Area of Destination				
		C.B.D.	West*	East	South	Suburban
	Sales	16,005.5	21,334.9	11,047.0	5,146.5	9,151.9
Area of Origin	Spending					
West						
- Conven.	7,770.5	2,441.1	7,770.5	-	-	-
- Compar.	3,420.2	3,420.2	3,420.2	-	-	-
- Excluded	3,810.2	-	-	-	-	-
East						
- Conven.	8,513.6	-	-	8,513.6	-	-
- Compar.	3,747.3	2,623.4	2,623.4	1,123.9	-	-
- Excluded	4,174.6	-	-	-	-	-
South						
- Conven.	6,120.2	641.5	641.5	332.2	5,146.5	-
- Compar.	2,693.9	2,020.4	2,020.4	673.5	-	-
- Excluded	3,001.0	-	-	-	-	-
Suburban						
- Conven.	10,009.1	805.8	805.8	51.4	-	9,151.9
- Compar.	4,405.5	4,053.1	4,053.1	352.4	-	-
- Excluded	4,907.9	-	-	-	-	-

*Including C.B.D.

Table M-12

Calculation of 1985 Retail Spending by
Trade Area and Type of Retail Outlet

	Metro Hamilton	City of Hamilton	Study Trade Areas			
			West	East	South	Suburban
Population 1985	740,000	428,100	99,800	133,600	194,700	311,900
Per Capita Income 1985	$ 2,515	2,500	2,609	2,430	2,492	2,533
	($000)	($000)	($000)	($000)	($000)	($000)
Aggregate Income 1985	1,860,161.5	1,070,118.8	260,278.4	324,648.0	485,192.4	790,042.7
Aggregate Retail Spending 1985	1,075,545.4	618,742.8	150,493.0	187,711.5	280,538.3	456,802.6
Food Group	269,723.5	155,167.3	37,740.4	47,074.0	70,352.9	114,556.2
General Merchandise Group	188,620.3	108,510.0	26,392.2	32,919.3	49,198.5	80,110.3
Automotive Group	288,511.0	165,975.4	40,369.2	50,352.9	75,253.3	122,535.6
Apparel and Accessories	76,080.6	43,767.9	10,645.4	13,278.1	19,844.4	32,312.7
Hardware and Home Furnishings	74,220.5	42,697.8	10,385.1	12,953.5	19,359.2	31,522.7
Other Retail Stores	178,389.5	102,624.4	24,960.7	31,133.7	46,530.0	75,765.1

of the inhabitants of each trade area. This amount is the sum of the spending inputs appearing on the same line.

In the body of each of the four origin-destination tables the first column is labelled "C.B.D." in the caption. The figures appearing in that column show the C.B.D.'s share of the total spending. The sum of these figures, appearing in the first row under the caption, equals the sales in the C.B.D.

When the figures appearing in the first column (C.B.D.) are expressed as percentages of the total spending of the trade area, the resulting ratios are the share factors shown in Table 18.

To estimate the 1985 sales in the C.B.D. the same origin-destination type analysis was not considered practical for it would have involved making separate forecasts for all trade areas. While this is not impossible it would have required considerable additional work and data gathering. Therefore the forecast was confined to determining how the share factors will be modified. Taken into consideration for this purpose were: the population forecast of the Planning Department for the Western Trade Area; the labour force forecast for the C.B.D. in 1985; and the estimated retail facilities in the other trade areas. A detailed discussion of the assumptions and considerations is omitted because of the space involved. The results of these forecasts are incorporated in the 1985 figures of Table 18. The other magnitudes necessary to calculate the 1985 sales in the C.B.D. are the estimated 1985 spending by type according to census classifications and by trade area. These are shown in Table M-12.

Floor Space

Only the forecast of the retail trade floor space involves considerations that need to be discussed here. The starting point of the calculations were the figures of sales per square foot in 1961, referred to as unit sales. It was assumed that these figures, shown in Table M-13, are stable and will not change for the floor space remaining, (i.e. continuing to be used for the same purpose) if calculated in dollars of 1961 value.

Table M-13

Unit Sales in the C.B.D. by Type of Outlet 1961-1985

	Sales per sq. ft. 1961 $	Sales per sq. ft. 1961 adjusted $	Sales per sq. ft. assumed for new floor space	
			Low $	High $
Food Stores	39.62	-	52.81	100.00
Department and Variety Stores	51.67	-	60.00	60.00
Apparel and Accessories	45.73	-	60.96	63.15
Hardware and Home Furnishings	28.97	33.32	38.62	46.11
Other Retail Stores	36.94	-	49.24	56.70

A development adding new retail floor space in the C.B.D. (with the exception of department stores) could not be justified economically if the unit sales are no higher than the 1961 average; they would have to be significantly higher. Two sets of unit sales figures were assumed for 1985 in making the estimates of floor space requirements: for the high estimate of floor space, the 1961 average unit sales were arbitrarily increased by 33%. If this resulted in a unit sales figure which was higher than the corresponding figure independently postulated for the low estimate - which turned out to be so in the case of department stores - then only one figure, the lower one,was used and the high and low estimates are identical. The unit sales figures used for the low estimate of floor space are those commonly adopted in economic feasibility studies of U.S. shopping centres, since these are the best available. Although the total cost of a unit of commercial floor space - due to land prices and higher construction costs - is considerably higher downtown and will be reflected in the rent demanded, this was nonetheless not taken into consideration. The unit sales assumed, shown above in Table M-13, probably represent a lower degree of financial success than in the suburbs. In the following paragraphs we give a short resume of the most important considerations regarding the five census retail groups considered in the analysis.

Department stores appear to do reasonably well in Hamilton even though unit sales are lower than in some of more successful locations. With most structures almost written-off, return on investment is probably

still high. All things considered, there can be little doubt that these outlets will have the least difficulty in affording modern prestige locations. Unit sales of $60, considered to be adequate for new locations, are just barely over the 1961 average.

Apparel and accessory stores averaged only slightly less than department stores. Expected unit sales, for new stores, range from $50 to $80 depending on the type. An average slightly over $60 for new floor space appears quite reasonable.

Hardware and home furnishing outlets have not done so well. Unit sales averaged by these outlets in 1961 must be considered quite low under normal circumstances and it is possible that the relatively lower level of employment in 1961 influenced to some extent the sales of some durables. Sales of $45 to $50 per square foot are regarded as adequate. The 1961 average of approximately $29 is inadequate to justify the continued existence of these stores in the C.B.D. and was arbitrarily increased by 15% to bolster the economic standing of the existing outlets, thereby reducing the excess spending in 1985 available for new floor space outlets.

Unit sales are a less meaningful measuring unit in the remaining two groups: food stores and other. The reason for this is basically similar: each of these two groups can be divided into sub-groups of a different character. Among food stores there are supermarkets and some delicatessen stores with unit sales of $100 or more but also small grocery and meat stores selling probably $30 or so. Unquestionably the latter cannot occupy newly built prime floor space, but will seek locations which are available at nominal rents. Supermarkets, on the contrary, seldom occupy anything but new or completely remodeled premises specially built for them. No significant population growth is expected in the core area so that any food store floor space would have to depend on the rather meagre increase due to a higher socio-economic standing of the inhabitants. New stores are not likely to be anything but the first type, whereas those of the second type will establish themselves only in existing floor space vacated by uses giving a higher return. The high estimate of new floor

floor space, based on unit sales of only $53, is likely to be quite unrealistic under these circumstances, whereas the low estimate is based on unit sales of $100.

Other Retail Stores are also a heterogenous group and can be divided into a convenience-shopping sub-group with relatively low unit sales and a comparative-shopping specialty goods sub-group with considerably higher unit sales. The difference is not as marked as between the two types of food stores, but the same line of reasoning is justified nevertheless. In light of this the high figure of unit sales assumed for new floor space is appropriate in making the floor space estimate.

The estimated new floor space required to be built was calculated as follows:

(1) An estimate was made of the amount of existing floor space which will be demolished or out of use by 1985. This point has been dealt with in Part IV.

(2) The amount calculated above was deducted from the existing (1961) floor space, giving the remaining space.

(3) The latter figure, representing the existing floor space still in use in 1985 was multiplied by the 1961 figures of unit sales - the adjusted figure in case of hardware and home furnishing stores. The result (expressed in dollars) was considered to represent the sales of outlets using the remaining floor space;

(4) The foregoing amount was deducted from the 1985 estimated sales for the C.B.D., leaving an excess amount of dollars;

(5) This excess is considered to represent the sales made by outlets using new floor space (i.e. built after 1961).

(6) By dividing this excess by the high or low unit sales assumed for new floor space, the amount of new floor space required was calculated, giving a low and high estimate respectively.

Other points of the floor space forecast have been adequately dealt with in the main text. For completeness of information the floor-space

ratios per employee (square feet per employee) are given in Table M-14 together with the corresponding ratios in Downtown Toronto for comparison.

Table M-14

Employee Floor-Space Ratios - 1961

	Hamilton C.B.D.	Toronto Downtown
Construction offices	150	-
Wholesale offices	150	193.0
Financial institutions	200	208.9
Investment dealers	156	163.4
Insurance carriers	167	176.6
Real estate and insurance agents	272	285.0
Doctors and dentists offices	150	225.0
Accountants	111	121.8
Advertisement	183	207.5
Engineering and scientific	240	281.8
Legal services	193	220.0
Professional associations	290	332.5
Other	173	197.3
Shoe repair shops	240	240.0
Photographic	220	223.3
Barber shop and beauty parlors	260	266.6
Restaurants	220	236.0
Miscellaneous	240	242.3